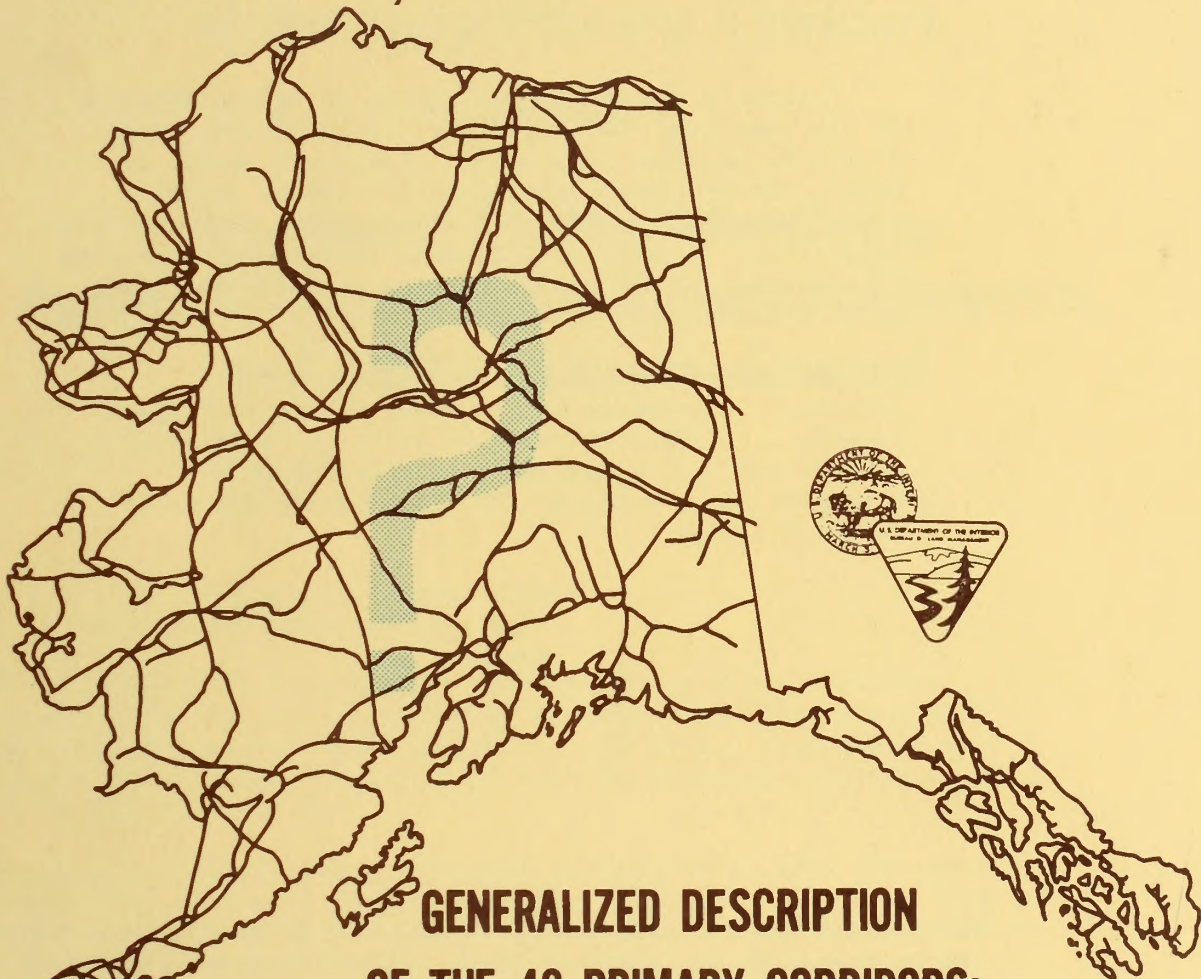




pt. 2 **Multimodal Transportation & Utility
Corridor Systems In Alaska**



**GENERALIZED DESCRIPTION
OF THE 40 PRIMARY CORRIDORS:**

**LOCATIONS, MODES, IDENTIFYING
AGENCIES, PURPOSES, ENVIRONMENTAL IMPACTS,
AND STATUS OF LANDS CROSSED**

A Preliminary, Conceptual Analysis

NOVEMBER 1974

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"Alaska's transportation system is in its infancy. At the same time the geographic consideration, large distances involved, and sparse population create a unique set of transportation needs. These needs cannot be met by haphazard development of transportation facilities. A genuine multimodal transportation system is essential if the transportation goals of the state, as it develops, are to be met.

"The Commission finds that land use should determine transportation patterns, rather than the reverse that residents of areas to be affected should have full opportunity to participate in transportation decisions through a proper system of public hearings"

-- Joint Federal-State Land Use
Planning Commission for Alaska,
August 1973

The preliminary location of the suggested Primary Corridor System has been made on the basis of resources and physical conditions without regard to present or potential land ownership. This report is intended to provide a useful framework for public discussion and further detailed study to assist in the development of a comprehensive land use plan for Alaska.

Bureau of Land Management
October, 1974

A Generalized Description of the Forty Primary Corridors in Alaska:

Locations, Modes, Identifying Agencies, Purposes, Environmental Impacts, and Status of Lands Crossed

NOTE: A previous 96-page summary outlined the need for corridors, resources to be served and avoided by corridors, and also State and Federal authorities for establishment of corridors. That report was presented to the Joint Federal-State Land Use Planning Commission and the State on November 14, 1974.

This volume, while including pertinent information on need for corridors, addresses each of the 40 Primary Corridors separately in a more detailed manner. Minor editorial changes have been made in the data included in this report. These are not changes in location, procedure or other important points.

Bureau of Land Management

November 1974

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United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Washington, D.C. 20240

October 31, 1974

To: Governor, State of Alaska
Joint Federal-State Land Use Planning Commission

The enclosed Primary Corridor System Report prepared by the Alaska State Office, Bureau of Land Management, is submitted to you for review and comment in accord with the provisions of Sec. 17(b)(3) of the Alaska Native Claims Settlement Act (PL 92-203).

The report reflects a conscious effort to provide alternative choices wherever possible, yet seeks to minimize adverse environmental impacts and to prevent proliferation of separate rights-of-way. Initial identification of the Primary Corridors has been made on the basis of the best available data from a variety of sources with heavy reliance upon information assembled by the Joint Federal-State Land Use Planning Commission. Corridors have been identified without regard to existing or prospective land and resource ownership.

Preliminary in nature, the Primary Corridor System Report should provide a useful framework for public discussion and further detailed study as it addresses a critical question of how best to identify individual transportation needs and multimodal potentials in a large undeveloped land mass on the eve of exceptionally rapid change. The report can also be an initial basis for working with the State, Joint Federal-State Land Use Planning Commission and the Congress in determining the best location of corridors and rights-of-way where the Department has proposed addition of approximately 83 million acres of public lands in Alaska to the national park, forest, refuge and wild and scenic rivers systems.


Reservations for each of the suggested Primary Corridors across public lands being conveyed to Alaskan Native Village and Regional Corporations will be terminated or modified whenever it has been concluded that a particular mode or corridor is not needed; the State determines that its

lands not be involved and there is no apparent alternative routing; or where the Congress determines that corridors or rights-of-way not cross proposed additions to the national park, forest, refuge and wild and scenic rivers systems and there is no apparent alternative routing. The advice of the Joint Federal-State Land Use Planning Commission will have a significant bearing upon the final decisions.

It is urged that the State and the Joint Federal-State Land Use Planning Commission hold public hearings to obtain wide public input into the development of a comprehensive, multimodal, statewide transportation system for Alaska. This would be a continuation of the initial efforts of the Commission hearings held throughout the State last spring. The Bureau stands ready to assist should public hearings be deemed desirable.

Detailed information on the suggested corridors is on file in the State Office, Bureau of Land Management, 555 Cordova Street, Anchorage, Alaska 99501.

Sincerely yours,

A handwritten signature in cursive script, reading "Eust B. Bertland".

Director

UNITED STATES GOVERNMENT

Memorandum

TO : Director, Bureau of Land Management

DATE: October 24, 1974

FROM : State Director, Bureau of Land Management,
Alaska

In reply refer to:
2800 (914)

SUBJECT: Initial identification of a Primary Corridor System,
Alaska

The enclosed study has been prepared in response to Instruction Memo 74-299 dated August 2, 1974. It outlines the urgent need for identification of a statewide transportation system for consideration in:

1. Making reservations for public access across lands being transferred into private Native ownership under the provisions of the Alaska Native Claims Settlement Act (PL 92-203);
2. Development of a rational plan for movement of high value energy resources from remote areas of Alaska which minimizes adverse environmental impacts and to prevent the proliferation of separate rights-of-way in accord with the principles established by Title I of the Mineral Leasing Act of 1920, Amendments and Trans-Alaska Oil Pipeline Authorization (PL 93-153);
3. Assessment of the need for a national system of transportation and utility corridors across Federal lands in accord with the provisions of Title I, PL 93-153;
4. Assessment of potential routes through Alaska for construction of pipelines and other transportation systems for the movement of natural gas and oil from Alaska through Canada to markets in the conterminous United States in studies required by Titles II and III of PL 93-153, and;
5. Preparation of the joint environmental impact statement by the Department of the Interior and Federal Power Commission, evaluating applications by the Alaskan Arctic Gas Pipeline Company and the El Paso Alaska Company to transport natural gas from the Prudhoe Bay Field.

Initial identification takes into account anticipated future development of Alaska for other minerals, wildlife, fish, agriculture, timber, scenic, recreational and historic resources in balance with equally high public values for preserving unique natural and primitive aspects.



An essential concern interwoven throughout our considerations is to provide an environment which will sustain the "Alaskan" way of life.

Primary corridors suggested in this report have been made without regard to existing or prospective land and resource ownership. Identification has been made on the basis of data assembled by the Joint Federal-State Land Use Planning Commission and other Federal, State and University studies. Each corridor has been carefully tested against planning assumptions and location criteria. However, present information is not adequate to determine the magnitude of the social, economic and environmental impacts of these corridors. Such a detailed evaluation, in accord with the provisions of the National Environmental Policy Act (PL 91-190), will be done whenever Federal approval is requested to construct a transportation mode or utility within a corridor.

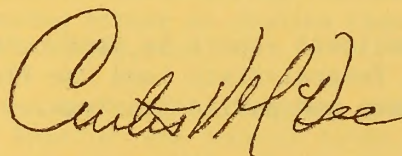
The study has been conducted by an interdisciplinary team of Bureau employees with the full time assistance of a transportation planner from the Department of Transportation, Federal Highway Administration (FHWA), and part time assistance of planners from both FHWA and the Federal Aviation Administration. We have actively sought the advice of all knowledgeable Bureau employees in Alaska and have obtained assistance from the Bureau of Mines and Alaska Power Administration. Preliminary comments from the Geological Survey, Bureau of Indian Affairs, National Park Service, and Fish and Wildlife Service are reflected. We have consulted the Forest Service and Bureau of Outdoor Recreation. We stress, however, that careful review by the public, State, Joint Federal-State Land Use Planning Commission, local governments, Natives, and concerned Federal agencies is required. Additional information has already been sought from the State.

It is my recommendation that:

1. The enclosed report be sent to the State of Alaska and Joint Federal-State Land Use Planning Commission requesting comments and public hearings.
2. Subject to the receipt of comments from the State of Alaska, Joint Federal-State Land Use Planning Commission, local governments, Natives, public and concerned Federal agencies, the suggested Primary Corridors be considered as interim locations.
3. The suggested Primary Corridors be considered for public easement reservations in interim conveyances of approximately 44 million acres of public lands to Alaskan Natives under the provisions of the Alaskan Native Claims Settlement Act.

4. The suggested Primary Corridors be an initial basis for working with the Congress and the State of Alaska to adequately accommodate statewide transportation and utility requirements and determining the best location for rights-of-way and corridors, should such be required, to cross the proposed addition of 83 million acres of public lands in Alaska to the national park, refuge, forest and wild and scenic rivers systems.
5. The interim conveyance documents should stipulate that easement reservations will be modified or terminated, if:
 - (a) Congress determines that no easements are to be reserved on National Interest Lands (d-2).
 - (b) The State determines that no easements are to be reserved on land under its jurisdiction.
6. The suggested Primary Corridors be considered in the preparation of the environmental impact statement evaluating pending applications to the Department of the Interior and the Federal Power Commission to transport natural gas from Prudhoe.
7. All corridors should be reviewed at least every five years to determine if still needed, or if they should be relocated, terminated, or modified.

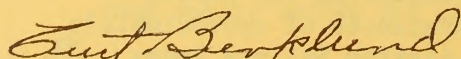
We stand ready to provide assistance to the Joint Federal-State Land Use Planning Commission and the State of Alaska should either or both deem it desirable to hold public hearings. We will make special efforts to consult Native villages and Regional Corporations.



Enclosure 1

Encl. 1 - Primary Corridor System, Alaska

I concur:



Director, Bureau of Land Management

PRIMARY CORRIDOR SYSTEM, ALASKA

INITIAL IDENTIFICATION

FOREWORD

This report addresses a critical question seldom encountered in planning:

How best to identify individual and multimodal transportation corridors in a large undeveloped land mass on the eve of exceptionally rapid change?

There has been, and may always be, decided opinion on the merits of individual transportation routes and modes in Alaska. Frequently, concern is expressed that routes or corridors are improperly located, or unnecessary. Development of transportation brings people into sparsely populated areas where residents have great dependence on the land for subsistence. Some contend that easements should be purchased from land owners. Others point out that the latent value of undeveloped land and resources will not be realized by its owners without reasonable assurance that people, goods and products can be transported to and from origin and market.

These considerations must be weighed against present and future national and State energy and mineral supply needs, and the national and State objective of preserving the rich Alaskan culture and simultaneously assure that outstanding scenery, wildlife, fisheries and wild areas are both preserved and accessible.

The forty Primary Corridor proposals in this report represent planning concepts and processes to assist in the development of a comprehensive land use plan, rather than an inflexible transportation system.

A conscious effort has been made to indicate alternative choices wherever possible. The data presented are based upon an interdisciplinary approach to transportation planning and the best available data from a variety of sources. The report is preliminary in nature, yet as a more detailed study should provide a useful framework for public discussion.

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SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Transportation throughout much of Alaska is not adequate for anticipated needs in the immediate future. There is no comprehensive, multimodal transportation and utility corridor plan to meet these needs.

Land uses in Alaska are on the eve of exceptionally rapid changes as:

- The quest accelerates to find, develop and export Alaska's large energy resources.
- Approximately 44 million acres of public lands in Alaska are transferred to the ownership of Alaska Native village and regional corporations.
- The transfer of 104.5 million acres of land from Federal to State ownership is completed in accord with the Alaska Statehood Act and other laws.
- Congress acts on recommendations of the Secretary of the Interior that 83.47 million acres of public land in Alaska be added to the national park, forest, wildlife refuge and wild and scenic rivers systems.

Transfer of lands selected by Alaskan Native village and regional corporations is ongoing, with major emphasis on expeditious transfer of land to Native ownership. This transfer causes a daily, piecemeal shaping of the future scope and location of surface transportation and utility corridor needs throughout Alaska.

Lands available for selection by Alaskan Natives and the proposed additions to the national park, forest, wildlife refuge and wild and scenic rivers systems comprise approximately one-third of the surface area of Alaska. Adequate transportation and utility corridors cannot become reality without crossing at least some Native-owned lands and some proposed additions to the four national conservation systems.

Intensive study by the Joint Federal-State Land Use Planning Commission, State, Alaskan Natives, and various Federal agencies has provided general information on the regional location of energy, mineral, forest, scenic, wildlife, subsistence, soils, vegetation, fisheries, wilderness, agriculture and related values.

We are now confronted with land use decisions which, in the case of lands proposed for addition to the national park, forest, wildlife refuge and wild and scenic rivers systems, will impose specific legislative and administrative constraints on the future of surface transportation and utility transmission systems in Alaska.

Initial identification of a Primary Corridor System is a step in determining overall state-wide land uses. It is therefore argued, with considerable merit, that it is first necessary to develop a comprehensive state-wide land use plan; then, after additional study reflecting local, State, national and international needs, to devise a transportation and utility system. However, the precise nature, location and magnitude of energy reserves in Alaska is unknown. While no exact plan can be prepared to develop and export energy from areas with most significant oil, gas, coal, geothermal, or hydroelectric potentials, there is now sufficient information to begin to answer the question:

IF THE QUANTITY OF ENERGY BELIEVED TO BE AVAILABLE IS THERE,
WHAT IS THE BEST WAY TO TRANSPORT IT WITH MINIMUM SOCIAL,
ECONOMIC AND ENVIRONMENTAL IMPACTS AND PREVENT PROLIFERATION
OF CORRIDORS?

Numerous plans have been proposed to improve existing capabilities to move people, goods, forest and agricultural products, minerals, crude oil, natural gas, electricity and other commodities within Alaska.

Each transportation and utility plan has special requirements for location; a need to keep construction and maintenance costs low; and a compulsion to take the shortest, most direct route possible. If the resulting plans for separate, often divergent, rights-of-way between common points took place, there would be maximized social, economic and environmental impacts on the existing "Alaskan" way of life, and a proliferation of corridors.

The quality of available data is not sufficient to make a judgment on the best modes or best specific routes. Data is adequate, however, to determine that the existing trans-Alaska pipeline corridor and Cook Inlet/Gulf of Alaska area cannot reasonably be expected to serve more than 34 percent of the anticipated recoverable deposits of oil to be found in Alaska. The remaining 66 percent is located where today there is no established transportation system.

An alternative to reserving options to meet future needs for a multimodal transportation and utility system in Alaska at this time is to "do nothing" and let each need be considered spontaneously when, where and as required. To the extent lands selected by Alaskan Native village and regional corporations have economic development potentials, a "do nothing" approach thwarts the stated intent of the Congress in the Alaska Native Claims Settlement Act that:

COMPOSITE OF ALL
TRANSPORTATION &
UTILITY CORRIDOR PROPOSALS
ALASKA




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- ARCTIC GAS ALTERNATIVE RT.



scale

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.... there is immediate need for a fair and just settlement of all claims by Natives and Native groups in Alaska, based on aboriginal land claims; the settlement should be accomplished rapidly, with certainty, in conformity with the real economic and social needs of Natives

Without reasonable assurance that minerals or other resources on Native-owned lands can be transported to market areas, their economic potentials would either be considerably reduced or non-existent.

Another factor to be considered is the "do nothing" alternative can be interpreted to mean that public access corridors or provisions for oil or gas pipelines and utilities are not warranted or needed until after the year 2001.

Recommendations

The Primary Corridor System described in this report can become the basis for public discussion and eventual decision as large land areas of Alaska are committed to specific uses. Accordingly, it is recommended that:

1. The Director, Bureau of Land Management transmit this report to the State of Alaska and the Joint Federal-State Land Use Planning Commission and request:
 - a. Advice on the acceptability and practicability of the proposed Primary Corridor System.
 - b. Advice on the need, modification or relocation of corridors or modes of transportation and utility facilities on a state-wide comprehensive, multimodal basis.
 - c. The Commission and State hold hearings to obtain public views on the best means for locating a state-wide, multimodal transportation and utility corridor system.
2. Pending review by the Joint Federal-State Land Use Planning Commission, local governments, Native village and regional corporations and the public, the initial identification of a Primary Corridor System described in this report be used as a basis for considering public easement requirements across lands being conveyed to Native village and regional corporations in accord with the provisions of Section 17(b) of the Alaska Native Claims Settlement Act (P.L. 92-203).

3. The interim conveyance documents transferring land ownership to Alaskan Natives stipulate public easement reservations will be terminated or modified:

a. If the State of Alaska determines that a particular corridor or mode should not cross areas owned by the State and where there is no reasonable alternative location; or if the Congress determines that a particular corridor or mode should not cross areas proposed for addition to the National park, forest, wildlife refuge or wild and scenic rivers systems.

b. If future determinations are made that a particular corridor or mode is not needed.

c. With selection and use of a single corridor or mode when there are one or more identified alternative locations or modes.

4. The suggested Primary Corridor System be the initial basis for working with the Congress and the State of Alaska to adequately accommodate state-wide transportation and utility requirements and for initial determination of the best location for rights-of-way and corridors, should such be required, across the proposed addition of 83.47 million acres of public lands in Alaska to the four national conservation systems.

5. The suggested corridors be considered in the preparation of environmental impact statements evaluating pending applications to the Department of the Interior and Federal Power Commission to transport natural gas from the Prudhoe Field of Alaska.

6. All corridors or transportation modes reserved for public access across lands transferred to Alaskan Native ownership be reviewed at least every five years to determine if easements:

a. are still required.

c. should be relocated.

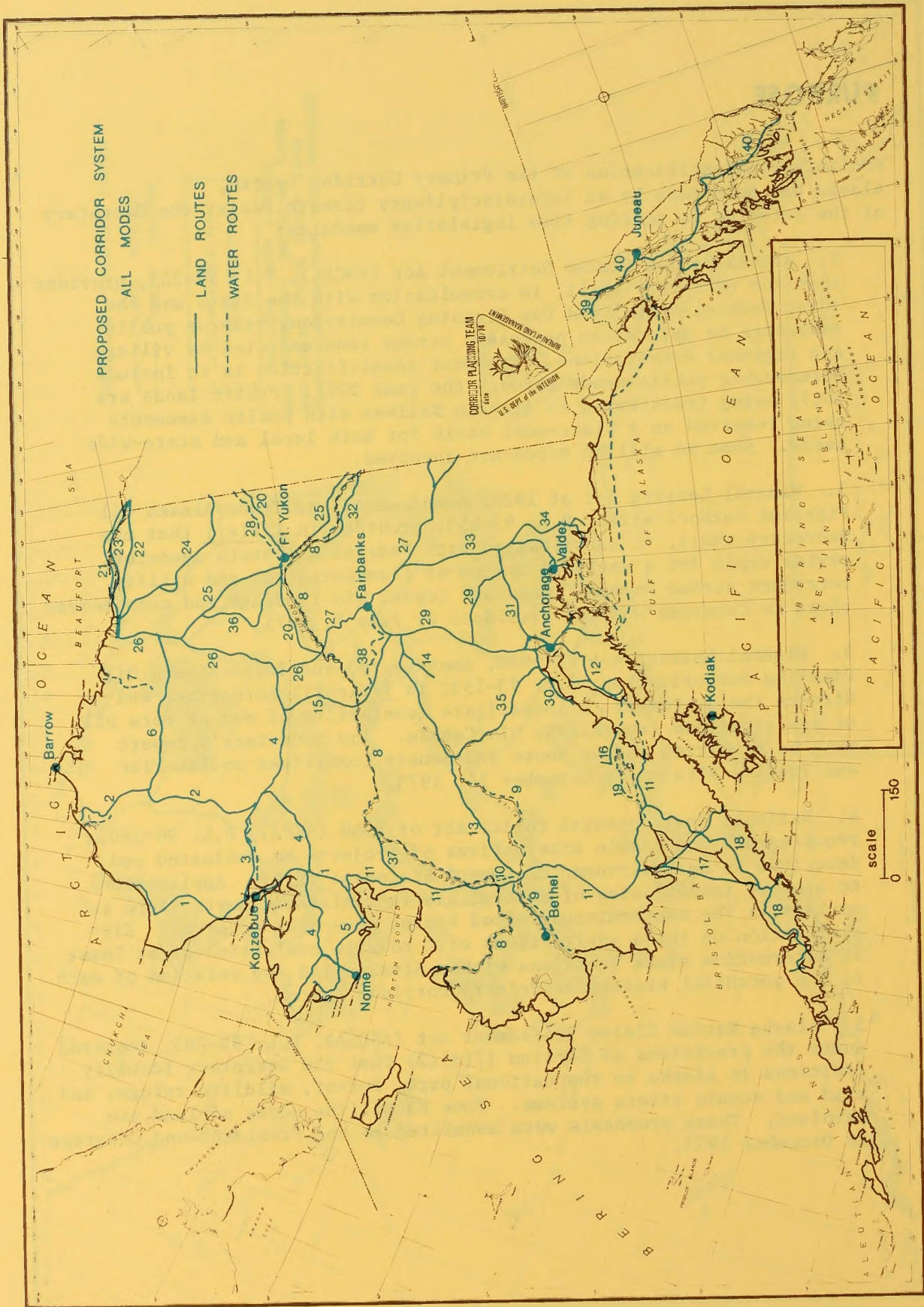
b. should be modified.

d. should be terminated.

PURPOSE

Preliminary identification of the Primary Corridor System, Alaska has been made by an interdisciplinary team to assist the Secretary of the Interior in meeting five legislative mandates:

1. Alaska Native Claims Settlement Act (ANCSA), P.L. 92-203, provides that the Secretary shall, in consultation with the State and the Joint Federal-State Land Use Planning Commission, reserve public easements he determines necessary across land selected by village and regional corporations. Easement identification is to include foreseeable public needs through the year 2001. Public lands are daily being transferred to Alaskan Natives with public easements being reserved on a piece-meal basis for both local and state-wide needs. Some 44 million acres are involved.
2. Mineral Leasing Act of 1920, Amendments, and Trans-Alaska Oil Pipeline Authorization, P.L. 93-153, provides in Title I that the Secretary shall, in consultation with Federal and State agencies, review needs for a national system of transportation and utility corridors across Federal lands and report his findings and recommendations to Congress and the President by July 1, 1975.
3. Mineral Leasing Act of 1920, Amendments, and Trans-Alaska Oil Pipeline Authorization, P.L. 93-153, in Title III authorizes and directs the Secretary to investigate feasibility of one or more oil or gas pipelines from Alaska via Canada. The Secretary's report must be submitted to the House and Senate Committees on Interior and Insular Affairs by November 16, 1975.
4. National Environmental Policy Act of 1969 (NEPA), P.L. 90-190, requires all reasonable alternatives of projects be evaluated and described in an Environmental Impact Statement (EIS). Applications to approve transmission of natural gas from Alaska's North Slope to markets in the conterminous United States have been received. EIS preparation on these applications will require evaluation of at least 14 alternative route locations within Alaskan and the relation of each to the potential state-wide Primary Corridor System.
5. Alaska Native Claims Settlement Act (ANCSA), P.L. 92-203, required under the provisions of Section 17(d)(2) that the Secretary identify additions in Alaska to the national park, forest, wildlife refuge, and wild and scenic rivers systems. Some 83 million acres of land are involved. These proposals were submitted to the President and Congress in December 1973.



ASSUMPTIONS

The following assumptions were used in the preliminary identification of the Primary Corridor System, Alaska:

1. Selection of lands by Alaskan Native village corporations under ANCSA by December 18, 1974, and the requirement for the Secretary to consider and reserve identified public easements across Native-selected lands compels immediate identification of a state-wide Primary Corridor System if lands are to be transferred to Native ownership without undue delay.
2. Priority Alaskan energy resources will be developed by the year 2001.
3. Transportation and development of energy and mineral resources will require surface routings within Alaska.
4. It is desirable to consolidate separate transportation and utility facilities into common corridors wherever possible to minimize adverse environmental impacts and prevent proliferation of separate rights-of-way throughout Alaska.
5. In some areas there are several corridor routings which could serve the same energy and mineral resources. Such multiple routings are alternatives which will be terminated or modified when one of the identified corridors is selected for construction of transportation and utility facilities.
6. Corridors involving pipelines should also reserve the option to include identified highway or rail transportation.
7. Surface transportation from off-shore oil and gas fields will tie to the closest identified Primary Corridor.
8. A viable economy for Alaska cannot be maintained on a program emphasizing only exportation of energy and non-energy resources.
9. Rail and waterborne transportation are and will continue to be economical modes for significant sustained and regular movement of heavy and bulky commodities over long distances.
10. Transportation by sea is not practical year-round above 65° North Latitude without effective ice-breaking capabilities.
11. Major Alaskan rivers are natural corridors which now or in the future will provide for:

- a. seasonal waterborne transportation;
 - b. seasonal transportation over snow/ice, and;
 - c. air cushion vehicle movement.
12. Air transportation has a distinct advantage for rapid movement of people and light freight over long distances and for infrequent movement of heavy equipment and does not require surface corridor identification.
13. There are insufficient data to determine the most desirable transportation mode when potentially competing modes have been identified in the same corridor.
14. There are insufficient data to determine the most desirable corridor when two or more alternative corridors have been identified.
15. Primary corridors in Alaska are not warranted for:
- a. communication systems do not require linear surface routings and interconnections;
 - b. movement of small numbers of people over long distances;
 - c. winter haul roads which are infrequently used, or;
 - d. resources having no identified state-wide or national significance.
16. The 12 alternative routings and the two prime routes identified in the Arctic Gas and El Paso natural gas transportation proposals are considered corridors where oil pipelines, other gas pipelines, highways or other transportation, utility or communication facilities could be added.
17. Transportation and utility corridor plans in adjacent Canadian areas are uncertain. When known, these may require modification and/or termination of several Primary Corridors in Alaska.
18. Identification of any specific mode of transportation or utility facility within a corridor is not made on the basis of a detailed evaluation that the specific mode should be constructed! Identification indicates an expectation that it might be a reasonable choice. It is further assumed that a detailed environmental impact statement would be prepared prior to construction of any mode and that alternative routings would also be considered prior to construction.

PLANNING GUIDES FOR LOCATION OF PRIMARY CORRIDOR SYSTEM, ALASKA

The following planning guides were used in the preliminary identification of corridors, which has been done without regard to existing or prospective land ownerships; in identification of Primary Corridors the importance of land use far exceeds that of land ownership.

1. Apply information on file with the Joint Federal-State Land Use Planning Commission and from other readily available sources.
2. Maintain reasonable options for identified transportation and utility facilities.
3. Corridors will be specific as to the time frames, number, and type of transportation and utility facilities to be identified in an easement.
4. Corridors should:
 - a. minimize impact on Alaskan life styles;
 - b. provide access to secondary resources having an identified high potential for development, while still maintaining the shortest practicable distance between the primary resource area and the use of transshipment location.
 - c. consider existing and prospective land use capability including topography, soil, permafrost, and earthquake prone zones, and;
 - d. consider the availability of gravel.
5. Wherever possible, corridor location should avoid:
 - a. village business, residential, and projected expansion areas;
 - b. high density fish and wildlife rearing areas;
 - c. key habitat for fish and wildlife species, especially areas used by endangered species;

- d. areas of high scenic, geologic, botanic and zoologic, historic or archaeological values where there is also high primitive value, and;
 - e. areas where a significant portion of the residents maintain a subsistence life style.
6. Corridor width is a function of:
- a. number and type of identified facilities within the corridor;
 - b. physical environment;
 - c. availability of detailed engineering data for one or more modes within the corridor;
 - d. safe location between different facilities within the corridor; and
 - e. esthetics.
7. Corridor location should be made on the basis of the mode or facility expected to be considered in that area whose successful operation depends most on topographic restrictions. In order of decreasing topographic sensitivity are:
- a. mineral slurry pipeline;
 - b. railroad;
 - c. highway;
 - d. oil or natural gas pipeline;
 - e. power transmission line.

PLANNING METHODOLOGY

Resource data, including areas used for subsistence purposes, compiled by the Resource Planning Team of the Joint Federal-State Land Use Planning Commission 1/, together with some 800 transparent overlays keyed to the U.S. Geological Survey topographic map series (scale 1:250,000), and other transportation plans have been carefully reviewed. This review consisted of examining some 15 basic data overlays on a wide range of conditions including mineral and energy resources, soils, wildlife habitats, agricultural and forestry potential, scenic, primitive and natural features, key fisheries areas and proposals for transportation and utility corridors needed to meet Alaska's future requirements.

Review resulted in an initial system, a set of planning assumptions and corridor location guidelines. Each assumption and guideline was tested against the initial system which in turn resulted in the proposed Primary Corridor System. It was found that in some cases it was not possible to avoid certain areas; likewise it was not possible to serve all areas of the State. Preliminary selection of each Primary Corridor sought to obtain the best physical route, avoid known critical or superlative areas (wildlife or scenic), yet provide access to other areas where more intensive land use was indicated, such as mineral and energy provinces.

The fundamental concept used to determine whether a Primary Corridor was needed is directly related to the development and movement of energy resources in Alaska. Once high-value energy resource areas were identified, the routing selection involved the basis question:

**IF THERE IS A SIGNIFICANT ENERGY RESOURCE,
HOW CAN IT BEST BE BROUGHT TO MARKET?**

1/ Resources of Alaska -- A Regional Summary, July 1974

SUMMARY OF CORRIDOR DATA

Symbol Identification

A	Archeological Values	N	Noise
ACV	Air-Cushioned Vehicle	NNAR	Noatak Natl Arctic Range
ADH	Alaska Dept of Highways	NWRA	Natl Wildlife Refuge
AG	Alaskan Arctic Gas Co.		System Additions
ANWR	Arctic National Wildlife Range	O&G	Oil and Gas
ANWRA	Arctic National Wildlife Range	OPL	Oil Pipeline
	Additions	OSV	Over-Snow Vehicle
APA	Alaska Power Administration	Pet 4	Naval Petroleum Reserve
APO	Alaska Pipeline Office		No. 4
ARR	Alaska Railroad	PF	Permafrost
BLM	Bureau of Land Management	PNF	Porcupine Natl Forest
C	Caribou	PSR	Porcupine Scenic River
CINR	Chukchi Imuruk Natl Reserve	PR	Peregrine Falcon
CKNM	Cape Krusenstern Natl Monument	PV	Primitive Values
CNF	Chugach National Forest	Rec	Recreation
COE	Corps of Engineers	RPT(LUPC)	Resource Planning Team,
CPT	Corridor Planning Team		Land Use Planning Commission
CRNWR	Clarence Rhode National	RPW	Rampart Power Withdrawal
	Wildlife Range	RR	Railroad
d-1	Withdrawn under Section d-1	S	Dall Sheep
	of Alaska Native Claims	SC	Scenic
	Settlement Act	SNWR	Selawik Natl Wildlife
DEW	Distant Early Warning Line		Refuge
	Bases	State	State of Alaska
DL	Deficiency Lands	Tetlin FR	Tetlin Former Refuge
Elim FR	Elim Former Reserve	TNF	Tongass National Forest
EP	El Paso Natural Gas Co.	TNWR	Togiak Natl Wildlife
ETL	Electrical Transmission Line		Refuge
F	Fisheries	Venetie FR	Venetie Former Reserve
GANP	Gates of the Arctic Natl Park	WC	Watercraft
GPL	Gas Pipeline	WF	Waterfowl
GT	General Transportation	WMNF	Wrangell Mountains
H	Hydrology		National Forest
HWY	Highway	WP	Water Pollution
INRR	Iliamna Natl Resource Range	WQ	Water Quality
INT	Secretary of the Interior	WWR	Wind Wild River
Klukwan FR	Klukwan Former Reserve	YCNR	Yukon-Charley National
KNMR	Kenai National Moose Range		Rivers
KVNM	Kobuk Valley Natl Monument	YDNWR	Yukon Delta National
Min	Minerals		Wildlife Refuge
MMNPA	Mt McKinley Natl Park Additions	YFNWR	Yukon Flats National
MPL	Mineral Slurry Pipeline		Wildlife Refuge
		YKNF	Yukon-Kuskokwim
			National Forest

SUMMARY

11-1-74

No. Name	Approx. Length	Identifying Agency	Purposes	Environmental Impacts	Native	d-2*	Other Lands
1. Lisburne-Koyuk	375	CPT, ARR, ADH	O&G, Coal, Min., GT	A, PF, C, H, WQ, PV, WF	4 Villages DL	CKNM	d-1
2. Pet 4, South	300	CPT, ADH, Navy	O&G, Coal, Min., GT, Copper	A, SC, WP, C, WF, PF, PV, F	2 Villages	KVNM, NNAR	Pet 4
3. Lower Kobuk Valley	125	ARR, ADH, CPT	O&G, Coal, Min., GT	C, PV, WF, PF, F, WP, WQ, SC, A	6 Villages DL	KVNM, NNAR	--
4. Prospect-Lost River	550	ADH	O&G, Min., GT, ETL	WF, SC, PV, PF, H, WP, C	9 Villages DL	SNWR, CINR GANP	State
5. Seward Peninsula, South Coast	275	ARR, ADH	O&G, Min., GT, ETL	WF, SC, PV, PF	7 Villages DL	--	Elim FR
6. Pet 4, East	250	ADH, Navy	O&G, Coal, GT	C, PV, WF, PF, SC	DL	--	Pet 4
7. Colville River	100	CPT	O&G	WF, WP, N, PR	1 Village DL	--	Pet 4, State
8. Yukon River	1,200	International Treaty	GT	WF, WQ, WP, N, F, PR, docks, dredging	27 Villages DL	YCNR, YFNWR, YKNF, YDNWR	RPW
9. Kuskokwim River	300	CPT, BLM	GT	WF, N, F, WP, WQ, docks, dredging	20 Villages DL	YKNF	--
10. Yukon-Kuskokwim Canal	30	COE	GT	WQ, H, WF, PF, F, N, docks, water inter-change	3 Villages	YDNWR	--
11. Koyuk-Kamishak Bay	650	ADH, BLM	O&G, Min., GT	WQ, WF, PF, H, F, PV, N	14 Villages DL	TNWR, INNR, YDNWR	d-1, State
12. Anchorage-Homer Power Grid	180	APA	ETL	SC, WF, WQ, F, H	3 Villages	--	CNF, KNMR, State

No.	Name	Approx. Length	Mode	Identifying Agency	Purposes	Environmental Impacts	Native	d-2*	Other Lands
13.	Bethel-Rex	500	GPL, OPL, HWY	ADH, BLM	O&G, Min., GT	WQ, H, PF, WF, F	18 Villages DL	MMNPA, YDNWR, YKNF	d-1, State
14.	Kantishna Spur	25	HWY	ADH, (RPT) LUPC	Min., GT, Rec.	WQ, H, PF, PV	DL	MMNPA	d-1, State
15.	Allakaket-Nenana, Rail	250	RR	ARR, ADH	O&G, Coal, Min., GT	WQ, H, PF, F, C, WF, PV	5 Villages DL	--	d-1, State
16.	Port Alsworth, Copper	80	MPL, HWY	ADH, BLM	Min., GT, Rec.	WQ, H, PF, F, WP, WF	4 Villages DL	--	--
17.	Bristol Bay Pipeline	A) 150 B) 200	GPL, OPL	BLM	O&G	WQ, F, WF	9 Villages DL	--	NWRA, State
18.	Alaska Peninsula	500	GPL, OPL, HWY, ETL	ADH, BLM	O&G, ETL, GT	C, WQ, H, PF, F, WF, PV, SC, Bear denning, off-shore marine, earthquake	9 Villages DL	INRR	d-1, State, NWRA
19.	Iliamna Lake	150	WC, ACV, boats, barges	BLM	GT, F	F, WP	7 Villages	INRR	d-1 State
20.	Porcupine-Flats	160	GPL, OPL, HWY	BLM	O&G, GT	WP, WF, F, N, SC, PF, PR	5 Villages DL	YFNNWR, PNF	RPW
21.	Beaufort Sea, Offshore	200	GPL, OPL, HWY	AG	O&G	WF, WP, N, PF, Polar bear	1 Village	--	State
22.	Arctic Game Range, Foothills	200	GPL, OPL, HWY	AG, CPT	O&G, GT	WF, C, PF, N, Polar bear	--	--	ANWR, State
23.	Arctic Game Range, Shoreland	200	GPL, OPL, HWY	BLM, APO	O&G, GT	WF, PF, N, SC, WP, C, F, Polar bear	1 Village	--	ANWR, State, DEW
24.	Arctic Game Range, Boundary	300	GPL, OPL, HWY	INT	O&G, GT	WF, C, S, PF, WP, N, SC, PV	--	--	Currently withdrawn corridor.

No.	Name	Approx. Length	Identifying			Environmental Impacts	Native	d-2*	Other Lands
			Mode	Agency	Purposes				
25.	Prudhoe-Fort Yukon	400	GPL, OPL, HWY	AC	O&G, GT	C, WP, PF, N, WF, PV	4 Villages DL	PNF, YCNR ANMRA, WWR	d-1, RPW, Venetie FR, currently withdrawn corridor.
26.	Prudhoe-Yukon River	320	GPL, OPL, HWY	INT	O&G, GT	C, WP, PF, N, WF, H, F	2 Villages	--	Currently withdrawn corridor.
27.	Rampart-Canada	375	GPL, OPL, RR	AG, EP, BLM, APA, ARR	O&G, GT	WP, C, WF, PR, PF	4 Villages	--	Tetlin FR, State, Currently withdrawn corridor.
28.	Porcupine River	210	WC, OSV, ACV	International Treaty	GT	WF, WP, PF, F, WQ, SC, PR	2 Villages DL	PNF, PSR	RPW, d-1, State
29.	Railbelt and Power Grid	600	GPL, OPL, ETL, HWY, RR	EP, APA, BLM	O&G, ETL, GT	WP, SC, PF, H, WF, F	6 Villages DL	--	CNF, d-1, State
30.	Upper Cook Inlet	175	GPL, OPL, MPL, HWY, RR	ADH, EP, BLM	O&G, Coal, GT	WF, WQ, F	7 Villages	--	State
31.	Glenn Highway	140	GPL, OPL, HWY, ETL	BLM, APA	O&G, ETL, GT	SC, WF, F, WQ, PF, C	5 Villages DL	--	d-1, State
32.	Circle-Eagle	130	GPL, OPL, HWY	AG, ADH	O&G, Min., Rec.	SC, WP, PF, PR, WF, S, C, PV	2 Villages DL	YCNR	RPW
33.	Big Delta-Valdez	290	GPL, OPL, HWY, ETL	EP, INT	O&G, ETL, GT	WP, SC, F, PF	6 Villages	--	CNF, d-1, State, Currently withdrawn corridor.
34.	Copper Valley	160	GPL, OPL, HWY, MPL	ADH, EP, BLM	O&G, Min., GT	SC, WF, F, S, Goat, Brown bear, Black bear	2 Villages DL	WMNF	CNF

No.	Name	Approx. Length	Identifying		Purposes	Environmental Impacts	Native	d-2*	Other Lands
			Agency	Mode					
35.	Rainy Pass	225	ADH, RPT (LUPC)	HWY	Min., GT	SC, WQ, PF, F, C, Black bear, Moose, WF	1 Village	YKNF	d-1, State
36.	Chandalar	200	BLM	GPL, OPL, HWY	O&G, GT	C, WP, PF, F, WF, N	--	YFNWR	Venetie FR, d-1, State, RPW
37.	Unalakleet	80	BLM	GPL, OPL	O&G	WQ, H, PF, F	3 Villages DL	--	d-1
38.	Tanana River	200	BLM	Boats, barges WC, OSV, ACV	GT	WP, WQ, F, WF, N, docks, dredging	3 Villages DL	--	d-1, State
39.	Haines	50	EP, CPT, BLM	GPL, OPL, HWY	O&G, GT	SC, WQ, F, Eagles	1 Village	--	Klukwan FR
40.	Southeast Power Grid	550	APA	ETL	ETL	PR, WQ, H, SC, WF, F, Soils, Brown bear, Goat, Deer, Bald eagles	4 Villages	--	TNF
	Proposed Extensions of Marine Highway System	--	State	Ferry	GT	WP	--	--	--

NOTES:

Water Quality - Affected by oil leakage; construction work would cause additional sediment and erosion problems.
 Waterfowl - General disturbance, drainage.
 Permafrost - Effect change and degradation.
 Hydrology - Generalizing effect of change of flow of water.
 Fisheries - Sport and anadromous.

(Scenic
 (Natural
 (Primitive
 - Differentiate between Scenic, Natural, and Primitive Values.

TOTAL LENGTH: 11,205

*Proposed additions to the National Park, Forest, Wildlife Refuges and Wild and Scenic Rivers Systems in Alaska.

MILEAGE AND LAND STATUS OF PRIMARY CORRIDOR SYSTEM

	<u>Miles</u> <u>1/</u>
I. Total Mileage	11,205
Additional modes or utilities within existing Primary Corridor System	-3,449
Existing major inland navigation routes	<u>-2,160</u>
Total mileage which involves extension of existing intermodal transportation and utility corridor system (rounded)	<u>+5,600</u>
II. Mileage of new facilities within total Primary Corridor System <u>2/</u>	
<u>Mode or facility</u>	<u>Mileage</u>
Pipelines	+7,500
Highways	+6,000
Railroads	+2,250
Power Grids	+1,500
Navigation <u>3/</u>	+ 30
III. Percentage of ownerships within total Primary Corridor System <u>4/</u>	
<u>Ownership</u>	<u>Percentage</u>
Federal	
(a) National Interest Lands (D-2)	12
(b) Other Federal	<u>39</u>
Total Federal	51
Native	27
State	22
Private (less than 1 percent)	<u>-0-</u>
Total	100
<u>1/</u> All mileages are approximate.	
<u>2/</u> Mileages are not additive since many occupy the same Primary Corridor.	
<u>3/</u> Assumes major inland waterways are already part of the existing system.	
<u>4/</u> Based upon withdrawal maps prepared by the Department of the Interior, March, 1974. Land ownership presently is in a flux as Native and park areas have not been firmly determined.	

INFORMATION FORMAT

FOR INDIVIDUAL CORRIDOR DESCRIPTIONS

As a general rule, available information is not adequate for a precise determination of actual facility or utility locations. The overall corridor location often is based upon Federal, State, and University studies concerned with movement of people, goods and resources.

Without precise knowledge of the exact location of a mode or utility, its size and operational requirements, it is not possible to precisely determine and evaluate impacts on the short- and long-range social, economic and environmental conditions as they exist today. Accordingly, the comments on each corridor are intended to identify major components of the route. A separate, detailed environmental impact statement assessing impacts of a proposal to construct a transportation or utility would be required whenever a major Federal action was necessary.

The following comments apply to each Primary Corridor:

A. Basis for Location.

All locations are tentative, and no construction would be approved by a Federal agency without full compliance with the National Environmental Policy Act. Each Primary Corridor was located on the basis of terrain and anticipated impacts on superlative resource values. When several modes or facilities were located in the same Primary Corridor, locations reflected limitations for the most restrictive mode. In decreasing order, these were: mineral slurry pipeline; railroad; highway; oil or gas pipeline; and power transmission line.

B. Environmental Impacts.

All construction projects which alter the natural surface of the ground will produce environmental impacts. The degree of impact will vary depending on the specific areas involved. These impacts, by no means complete, include:

1. Hydrologic changes resulting from construction of drainage structures and embankments.
2. Water pollution due to soil erosion and siltation during construction activities and after construction with improper revegetation.
3. Air pollution in the form of dust from construction activities and exposed soils.

4. In areas of permafrost, construction can result in considerable subsidence and heaving problems. Differential settlement of completed structures might result.
5. Increasing noise, air and water pollution from the use of mechanized vehicles.
6. Where pipelines are included, the danger of rupture exists with resultant slurry or oil spillage or gas leakage.
7. In areas used by migratory animals, alteration of the migratory range is a possibility. Where waterfowl nest or feed, their habitats can be disrupted by noise and movement of vehicles.

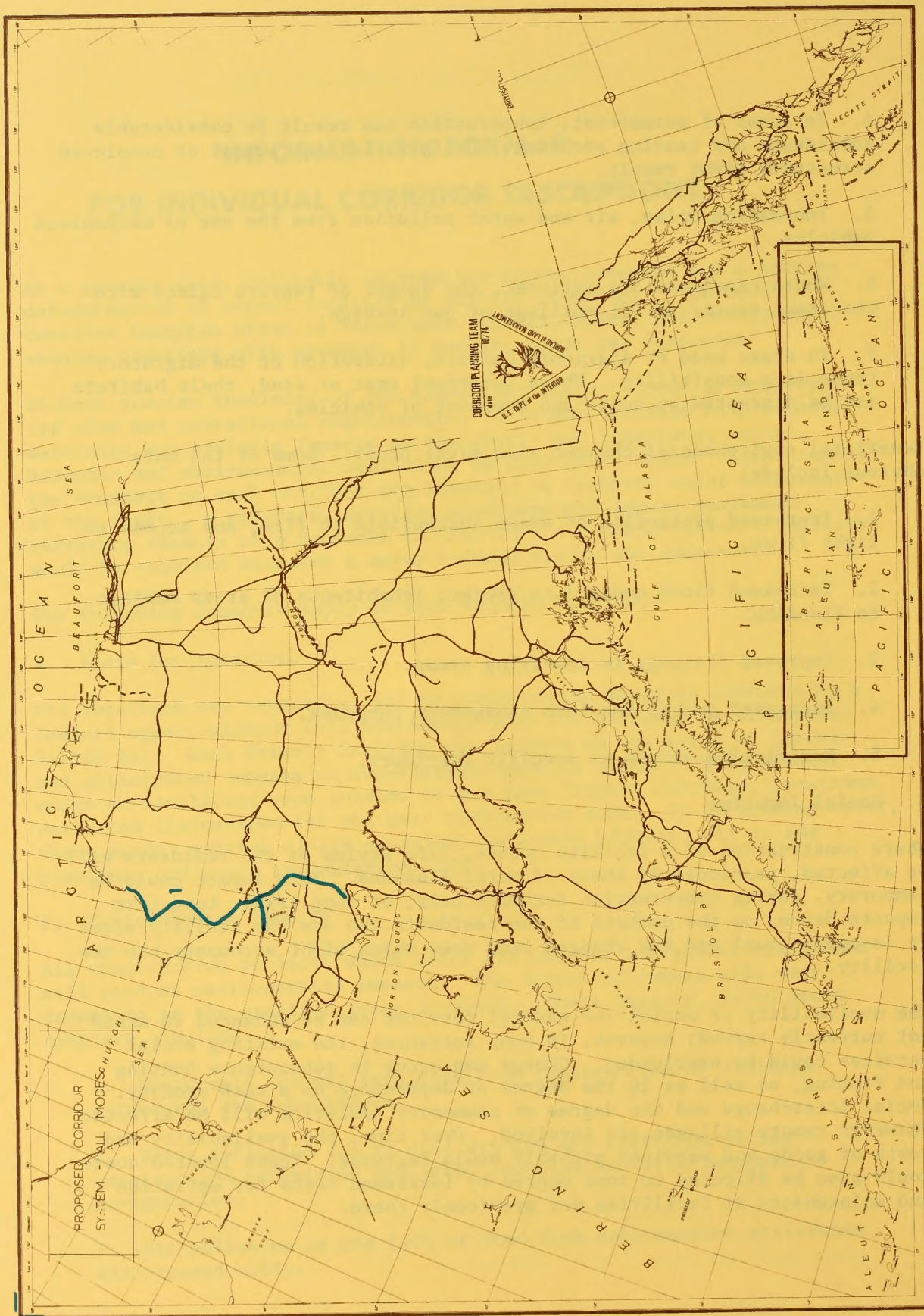
Beneficial environmental changes also might occur. Some of the more obvious include:

1. Increased protection of areas susceptible to fire, and access to fight fires.
2. Increased flood control to protect inhabitants of areas subject to flooding.
3. Improved drainage in low-lying areas.
4. Increased access for land management purposes.
5. Restricting access to specific corridors.

C. Social Impacts.

Where construction of a facility occurs, life styles of the residents will be affected, particularly those of rural Alaskans. This impact could be temporary, during construction activity only, or long term. Long-term impacts depend on the numbers of non-residents who use the facility after it is operational and the changed land uses which might accompany the new facility.

The availability of social and medical services can be enhanced in areas not currently served; however, in some instances, the existing social services could be overloaded. Change can occur in subsistence hunting and fishing, as well as in the degree of dependence on a cash economy. Social interchange and the degree of community isolation will be affected whenever remote villages are involved. Over time, the availability and costs of goods and services probably would decrease. These lowered costs would also be affected to some degree by increased costs for operation and maintenance of facilities not previously there.



CORRIDOR #1: LISBURNE-KOYUK

1. Length (miles) approx. 375
2. Route Description:

This corridor extends north-south from the northwestern Arctic Coast of Alaska just south of Naokok to the southeastern portion of the Seward Peninsula. Starting from the Arctic Ocean, the corridor crosses the DeLong Mountains and passes to the west of Noatak. The corridor continues south along the Baldwin Peninsula through the Selawick Lowlands and traverses the eastern portion of the Seward Peninsula; it terminates at Koyuk. It also includes an underwater spur from Cape Espenberg to the Baldwin Peninsula.

This corridor is the northernmost link in a corridor which extends from the Arctic Slope to a port facility near Cook Inlet.

3. Purposes to be served by the corridor.

Prime reasons:

The corridor is intended to serve energy resources found in the western areas of the Arctic Slope; these include coal, oil and natural gas. The corridor will serve the Hope, Chukchi, and Lisburne basins which are number one ranked potential provinces for oil and gas production. There are known deposits of coal which are suitable for the manufacture of coke. The corridor provides a method of transporting oil and gas from the Kotzebue Sound region.

Secondary reasons:

The corridor interties with corridors #3, #4, and #5. These corridors will be used for transporting energy-related and mineral resources. The corridor serves a secondary function to transport people and freight. Such a corridor would facilitate mineral exploration work in a region of few surface corridors.

4. Mode(s)

Five modes identified for this corridor are: a railroad, a highway, a coal slurry line, a gas pipeline, and an oil pipeline. The pipelines are the only modes which extend along the entire length of the corridor. The railroad and highway modes extend south from Cape Sabine to join corridor #3 in the vicinity of the Igichuk Hills. A segment of highway extends south from Kotzebue to the junction with corridor #4 near Buckland. All five modes are included in the segment from the junction with corridor #4 to Koyuk. A short underwater spur extends

from Cape Espenberg to the Baldwin Peninsula containing an oil and gas pipeline.

5. Estimated time frame for use.

The Standard Oil Company of California is expected to begin drilling on the Baldwin Peninsula by early 1975. If substantial reserves of oil are discovered, the need for a pipeline could develop within the next five years.

Coking coal is a necessary ingredient in the manufacture of steel. At present, the high cost of transportation precludes the extraction of coal from the Arctic Slope. A modern facility operating within a designated corridor could reduce shipping costs to the extent that exportation to world markets would become profitable. The market for export is available now.

6. Corridor identified by:

The Alaska Railroad has recommended the northern segment of the proposed corridor. The segment along the Baldwin Peninsula to Koyuk was identified by the Alaska Department of Highways. The Corridor Planning Team recommended added modes.

7. Basis for location.

The Alaska Department of Highways location was used.

8. Opposition expected to corridor.

It is expected that the corridor will be opposed by conservation groups and by Native groups.

9. Environmental Impacts.

The corridor passes through areas of medium to high density waterfowl habitat and areas crossed by migrating caribou. It also passes through areas of good to high primitive value. In areas of permafrost, localized thawing and subsidence could occur and possibly cause hydrologic flow changes. A pipeline rupture could result in oil spillage which could seriously impact water quality and waterfowl. A portion of the corridor passes through an area proposed for special protection because of its high archeological value. The corridor avoids known concentrations of archeological sites.

10. Social Impacts.

Pipeline: The greatest impact of the pipeline construction will be the influx of pipeline workers.

Highway: The impact of the highway will result from linking of outlying areas to the main population centers of the State.

Railroad: The railroad will have a similar impact to that created by the highway.

If developed because of anticipated deposits of high value energy resources, impacts can be expected to alter traditional life styles, particularly subsistence hunting and fishing. These would be in addition to similar impacts resulting from proposed park development.

11. Land Status.

The corridor will cross lands having the following status:

a) Proposed d-2 lands.

Cape Krusenstern National Monument.

b) Lands withdrawn for Native selection.

Noatak	Kotzebue
Buckland	Koyuk

c) Native deficiency lands.

Nana Native Regional Corporation
Arctic Slope Native Regional Corporation

d) Other.

d-1 land.

12. Alternative corridor routes.

Corridor #3 could serve as an alternate to the segment of this corridor which extends from the Igichuk Hills to Buckland. There is no alternative corridor from the junction with corridor #4 near Buckland to the junction with corridor #5.

CORRIDOR #2: PET. 4, SOUTH

1. Length (miles) approx. 300

2. Route Description:

This north-south corridor begins at the Arctic Coast, near Wainwright, and ends near the confluence of the Ambler and Kobuk Rivers. The route takes a generally southeasterly direction from Wainwright, passing about 10 miles to the east of Kangik. The route continues across Lookout Ridge and proceeds to the vicinity of Howard Pass; it terminates about 20 miles northwest of Shungnak. The corridor joins corridors #6 and #4.

The initial 100 miles of the route are located in the Arctic coastal plain. The balance of the route passes through the mountains of the Brooks Range; these mountains are generally below elevation 5,000.

3. Purposes to be served by the corridor.

Prime reasons:

This corridor serves the high potential oil and gas basins and coal deposits of the Arctic Slope. The corridor will provide a route for transporting oil and gas out of the area. It will allow supplies and equipment that are barged to Wainwright or Ambler to be transported overland for use inland. This corridor will permit further development of Naval Petroleum Reserve No. 4. It would also serve national defense in times of emergency.

Secondary reasons:

This corridor will serve a copper deposit located near Feniak Lake in the Brooks Range. The corridor will facilitate the mining of the copper ore and the subsequent transport of ore or ore concentrates. The corridor will provide additional access for mineral exploration and link the Wainwright area with the balance of the State via a surface connection.

4. Mode(s)

This corridor includes a highway, a railroad and oil and gas pipelines. The highway extends along the entire length of the corridor and forms a north-south link between corridors #3, #4, and #6.

The railroad extends north from corridor #4 to Lookout Ridge in the Brooks Range and could provide a means of transporting ore concentrates to market.

The pipeline extends south from the vicinity of Kangik to corridor #4; oil and gas production can be transported to ports in southern or western Alaska.

5. Expected time frame for use.

The current energy situation indicates that the demand for oil and gas will continue to grow as national policy dictates that we increase our ability to supply petroleum from domestic sources. Furthermore, the world demand for copper is continuing to grow to the degree that demand cannot be met from known economic reserves. These two situations indicate that construction of facilities within this corridor will occur by 2001.

6. Corridor identified by:

The Department of the Navy has identified this corridor for the transport of oil and gas out of Naval Petroleum Reserve No. 4. Coal was considered by MIREL Report #29, University of Alaska (September 1973).

The Alaska Department of Highways and the Corridor Planning Team identified this route as a transportation corridor.

7. Basis for location.

The Alaska Department of Highways location was used.

8. Opposition expected to corridor.

It is expected that environmental groups and Native groups will oppose this corridor. The U.S. Fish and Wildlife Service and the National Park Service have voiced opposition to this corridor.

9. Environmental Impacts.

The corridor is designated for multiple use which includes a hot oil pipeline. A rupture of the line would impact fish and wildlife. The corridor passes through a caribou range and the northern portion has been routed further to the east to avoid a caribou calving area. Areas of medium and high density waterfowl habitat are crossed by the corridor. Lands of a high scenic value and lands which are primitive in character are also affected by this alignment.

The proposed Kobuk Valley National Monument represents an area of environmental and cultural sensitivity through which at least a portion of the corridor is located.

Localized thawing of the permafrost could result in severe differential settlement of structures. There could also be impacts on the Feniak Lake area where archeological and botanical values exist.

10. Social Impacts.

The extent of the social impacts brought about by the corridor could range from slight to severe depending on the proximity of villages to the corridor. Some change in Native lifestyles would occur particularly in relation to subsistence hunting and fishing.

11. Land Status.

The corridor will cross lands having the following status:

a) Proposed d-2 lands.

Kobuk Valley National Monument

Noatak National Arctic Range

b) Lands withdrawn for Native selection.

Wainwright Ambler .

c) Native deficiency lands.

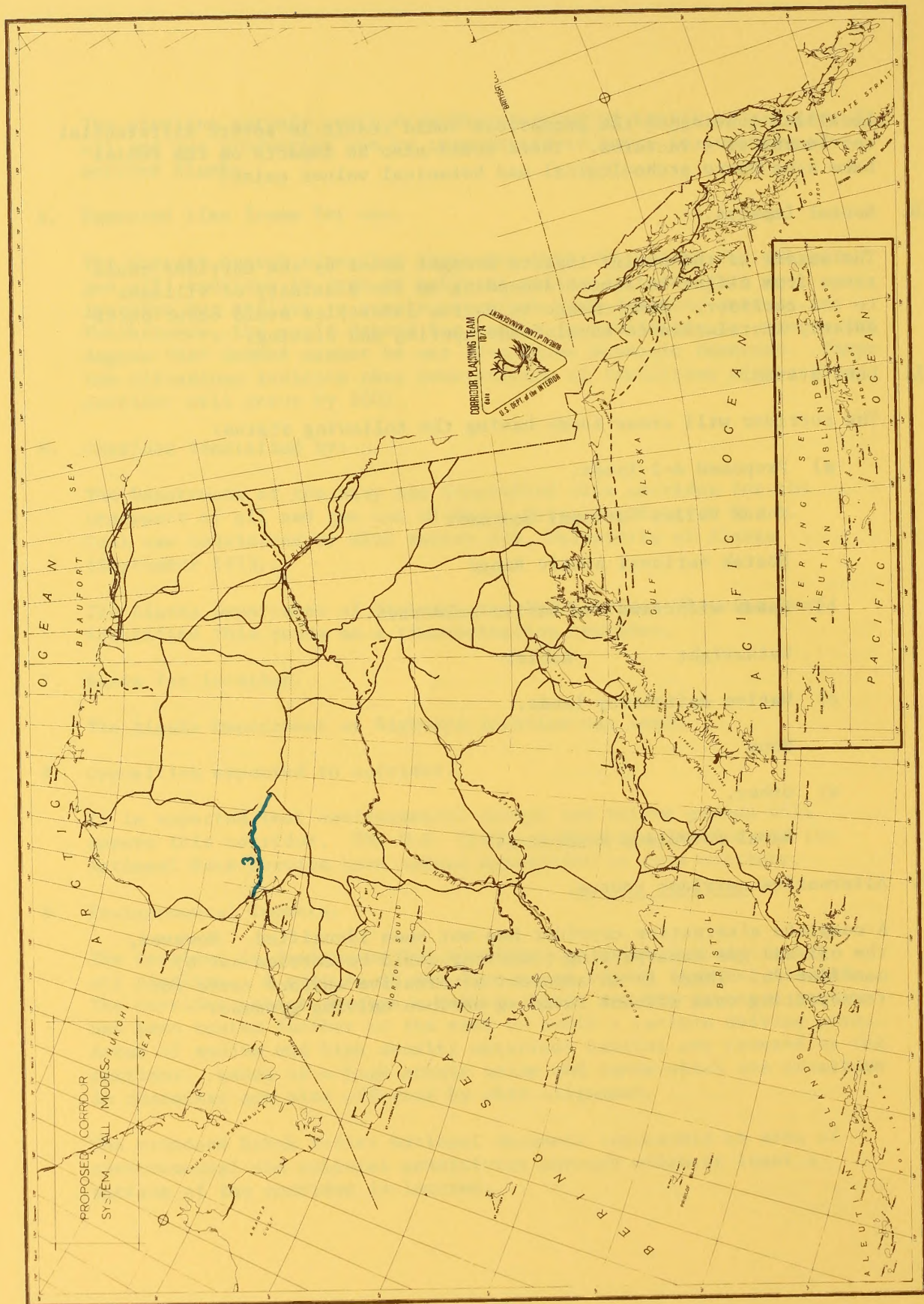
None

d) Other.

Naval Petroleum Reserve #4

12. Alternative corridor routes.

A complete alternative corridor has not been identified. However, the oil and gas transporting functions could be carried out by corridor #6. There is no apparent alternative surface route for transporting coal without invading caribou calving grounds.



CORRIDOR #3: LOWER KOBUK VALLEY

1. Length (miles) approx. 125
2. Route Description:

The Kobuk Valley corridor is an east-west link which joins corridor #1 to corridor #2. This corridor joins corridor #1 in the vicinity of the Igichuk Hills and extends eastward to the confluence of the Ambler and Kobuk rivers. The corridor moves out of the mountains and parallels the Kobuk River from the village of Kiana to the junction with corridor #2.

3. Purposes to be served by the corridor.

Prime reasons:

Removal of the energy resources of the Arctic Slope to transshipment points in the southern or western portions of the State. Utilization of energy reserves of oil, gas and coal dictate a need for a transportation corridor.

Secondary reasons:

There are extensive deposits of copper and other metals along the proposed route. These deposits would be served by the corridor. The corridor will provide additional access for fire control purposes, as well as assisting in the movement of freight and people.

4. Mode(s).

A railroad, highway, oil and gas pipelines are the proposed modes. The pipelines would serve the removal of petroleum resources; the railroad could perform a double function by hauling coal and mineral concentrates. The Kobuk River is an existing water route which can be used by watercraft and over snow vehicles, and in the future, by air-cushioned vehicles.

5. Expected time frame for use.

Current energy demands coupled with expected shortages of copper indicate that the corridor will be used before 2001.

6. Corridor identified by:

This corridor has been recommended by the Alaska Railroad through the Alaska Department of Highways in its July 1973 Planning Map. The Corridor Planning Team recommended the addition of the highway mode.

7. Basis for location.

Some preliminary studies by the Alaska Railroad were performed a number of years ago.

8. Opposition expected to corridor.

There may be opposition from Native groups and environmental groups. The U.S. Fish and Wildlife Service and the National Park Service have voiced opposition to this corridor.

9. Environmental Impacts.

A rupture of the oil pipeline could cause impacts in the Kobuk River, including water pollution and reduction of water quality. The Kobuk River is rated as one of the best sport fishing areas in the State. The corridor will pass through an area of high density waterfowl habitat and areas crossed by caribou migrations. There are regions of high scenic and primitive value which are impacted by the corridor. At least a part of the proposed corridor will impact the proposed Kobuk Valley National Monument, an area of sensitive environmental, cultural and archaeologic significance.

Construction projects can cause localized thawing of the permafrost resulting in severe differential settlement of structures.

10. Social Impacts.

It is reasonable to expect that there will be impacts created by the presence of large numbers of construction workers and from mining of copper at Bornite and development of oil and gas and proposed parks and refuges in the general region to the north and west.

Improving transportation between this portion of the State and the major population centers is certain to put additional developmental pressures on the villages.

11. Land status.

The corridor will cross lands having the following status:

a) Proposed d-2 lands.

- 1) Kobuk Valley National Monument
- 2) Noatak National Arctic Range

b) Lands withdrawn for Native selection.

Noatak
Kiana
Noorvik
Ambler
Kobuk
Shungnak

c) Native deficiency lands.

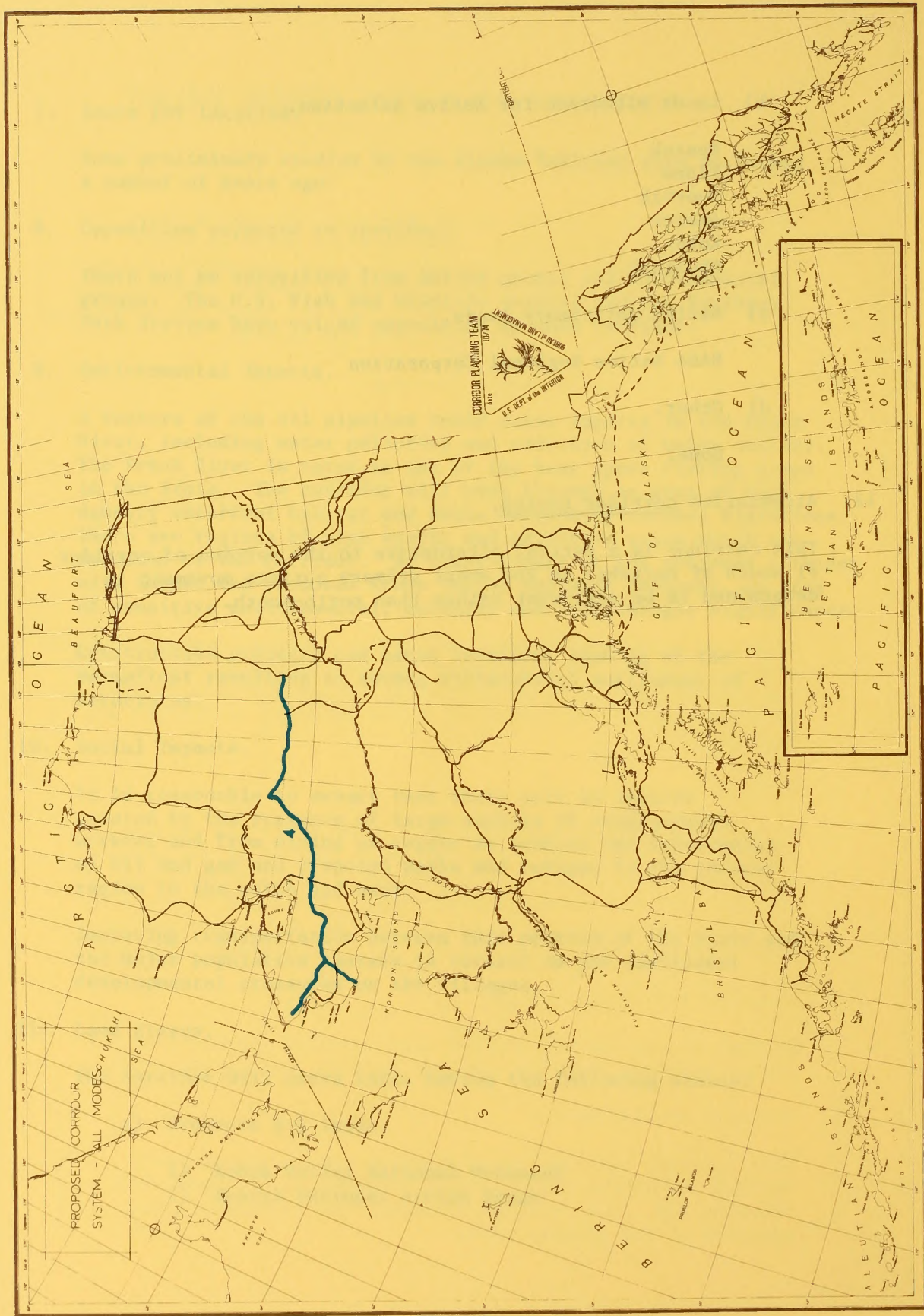
NANA Native Regional Corporation

d) Other.

None.

12. Alternative corridor routes.

This corridor is a partial alternative to the portion of corridor #1 south of Kotzebue in the event primary surface movement is determined to be east-west rather than north-south.



CORRIDOR #4: PROSPECT—LOST RIVER

1. Length (miles) approx. 550
2. Route Description:

This is an east-west corridor which extends from the existing corridor #26 in interior Alaska, to the western extreme of the Seward Peninsula. The corridor begins near Bettles Field and proceeds westward past Alatna, crossing the Hogatza River just south of Norutak Lake. The route continues to Kobuk passing to the north of the Lockwood Hills. At Kobuk, the corridor takes a southwesterly route passing to the west of Purcell Mountain and meets corridor #1 about 10 miles south of Buckland. The corridor extends along the center of the Seward Peninsula along the north side of the Bendeleben Mountains and continues along Port Clarence to the vicinity of Cape Prince of Wales. A spur off the corridor from Wales connects Mary's Igloo to Nome.

3. Purposes to be served by the corridor.

Prime reasons:

The corridor will facilitate the movement of oil and gas as well as the substantial mineral deposits found on the Seward Peninsula. The corridor is a principal east-west corridor across the state, which will link the major north-south corridors in a systematic way. Resource movement can be either from the Arctic Slope to the eastern portion of the state or to port facilities on the Seward Peninsula. The corridor has the potential to serve oil basins in Kotzebue Sound, Norton Sound and the Arctic Slope.

Secondary reasons:

The corridor offers a potential for overland movement of freight and people. It will also provide additional access for mineral exploration and development. Timber access and fire control capabilities will be enhanced by the corridor. The corridor can also provide access for recreation purposes. A spur would bring electrical power from the proposed Tuksuk Gorge power project to Wales, Mary's Igloo, and Nome.

4. Mode(s).

There are 6 modes contained in the corridor; railroad, highway, electrical transmission line, coal slurry, oil, and gas pipelines. The railroad extends from near Bettles to the junction with corridor #1; at this junction the railroad follows corridor #1 to its junction with corridor #5, and then follows corridor #5. The highway is present for the entire length of the corridor. The oil and gas

pipelines extend from the eastern terminus of the corridor to Grantly Harbor on the Seward Peninsula. The coal slurry line extends from the junction with corridor #1 to Grantly Harbor. The transmission line connects Wales and Mary's Igloo to the potential Tuksuk Gorge hydropower site and thence joins corridor #5 to Nome.

5. Expected time frame for use.

The Alaska Department of Highways has already held public hearings on the eastern segments of the proposed corridor. The corridor could be used for highway purposes within 10 years.

6. Corridor identified by:

The corridor has been recommended by the Alaska Department of Highways and University of Alaska MRL Report #29 (Sept. 1973).

7. Basis for location.

The Alaska Highway Department has performed engineering studies on portions of the route. These data were applied to just south of Buckland.

8. Opposition expected to corridor.

Environmental groups and Native groups have already voiced objections to the corridor. The U.S. Fish & Wildlife Service has voiced opposition to this corridor.

9. Environmental Impacts.

The corridor passes through an area of high density waterfowl habitat and an area where caribou and reindeer range. There are several regions which contain places of high scenic value as well as high value primitive lands. Hydrologic changes and water pollution might be caused by construction near Interior rivers. Construction in Alaska most often occurs in areas of permafrost. The facilities themselves and the attendant activity can cause this permafrost to thaw; one potential result of such thawing is destruction of a facility by differential settlement. Electrical power lines would affect scenic values, but the major impacts would come from installation of the hydroelectric facilities needed to generate the power.

10. Social Impacts.

The impacts of this corridor will be significant. It will link many villages to the population centers of the state. There will be impacts arising from contact with construction workers and other users and overloading of the local social service capabilities in addition to those associated with mineral resource and park and refuge development proposals.

11. Land Status.

The corridor passes through lands having the following status:

a) Proposed d-2 lands.

Selawik National Wildlife Refuge
Chukchi Imuruk National Reserve
Gates of the Arctic National Park

b) Lands withdrawn for Native selection.

Teller
Brevig Mission
Mary's Igloo
Shungnak
Kobuk
Alatna
Bettles Field
Wales
Allakaket

c) Native deficiency lands.

Doyon Native Regional Corporation

d) Other.

State lands

12. Alternative corridor routes.

Alternatives to this corridor include the following:

Corridor #1 coupled with corridor #11 could serve oil and gas production from the western Arctic Slope. Corridor #5 could serve as an alternate for the western section of this route. Corridor #26 could serve as an alternative to transporting oil and gas from the Eastern Arctic Slope to the west for shipment. None of the other recommended corridors can fully supplant this corridor.

CORRIDOR #5: SEWARD PENINSULA, SOUTH COAST

1. Length (miles) approx. 275
2. Route Description:

This corridor is basically an east-west route running along the southern coast of the Seward Peninsula. The western terminus is Teller; from Teller the route winds along the southern coast passing through Nome, Solomon, White Mountain, Elim and Koyuk. The route is located along a rolling coastal plain and skirts the mountains wherever possible. At Koyuk the corridor joins with corridor #1. A spur off the corridor connects Nome to hydroelectric power from the proposed Tuksuk Gorge power project.

3. Purposes to be served by the corridor.

Prime reasons:

The corridor is intended to serve the mineralized areas of the Seward Peninsula. The corridor can provide access to a potential deepwater port facility at Golovin Bay. This port could be used to ship minerals, oil and gas from the Arctic Slope.

Secondary reasons:

The route could serve as overland connection linking the Seward Peninsula to the rest of the State. It will permit freight movement on a, more or less, year-round basis. The corridor will facilitate further mineral exploration and development on the Seward Peninsula. A spur would bring electrical power to Nome from the proposed Tuksuk Gorge power project.

4. Mode(s).

The corridor contains a railroad, a coal slurry line, oil and gas pipelines. The railroad extends along the entire length of the corridor. The pipelines extend from the junction with corridor #1 to Golovin Bay. A spur from Nome contains electrical power lines.

5. Expected time frame for use.

Demand for metallic ores, coal, oil and gas will probably cause this corridor to be used before 2001.

6. Corridor identified by:

Portions of this corridor were recommended by the Alaska Railroad and the Alaska Department of Highways.

7. Basis for location.

Portions of the Alaska Department of Highways location were used.

8. Opposition expected to corridor.

It is expected that environmental and native groups will oppose this corridor.

9. Environmental Impacts.

Portions of the corridor are next to areas of medium to high density waterfowl habitat and lands with scenic and primitive values. Construction would most often occur in areas of permafrost. The facility itself and the attendant activity can cause the permafrost to thaw; one result of such thawing is destruction of a facility by differential settlement. Electrical power lines will cause minimal impacts as compared with other transportation modes.

10. Social Impacts.

Impacts can be expected from the railroad, particularly if a link with Fairbanks occurs which will increase Native mobility above that which would otherwise occur with anticipated and planned mineral and park development on the Seward Peninsula.

11. Land Status.

The corridor will cross lands having the following status:

a) Proposed d-2 lands.

None

b) Lands withdrawn for Native selection.

Teller	Golovin	Brevig Mission
Nome	White Mountain	
Solomon	Koyuk	

c) Native deficiency lands.

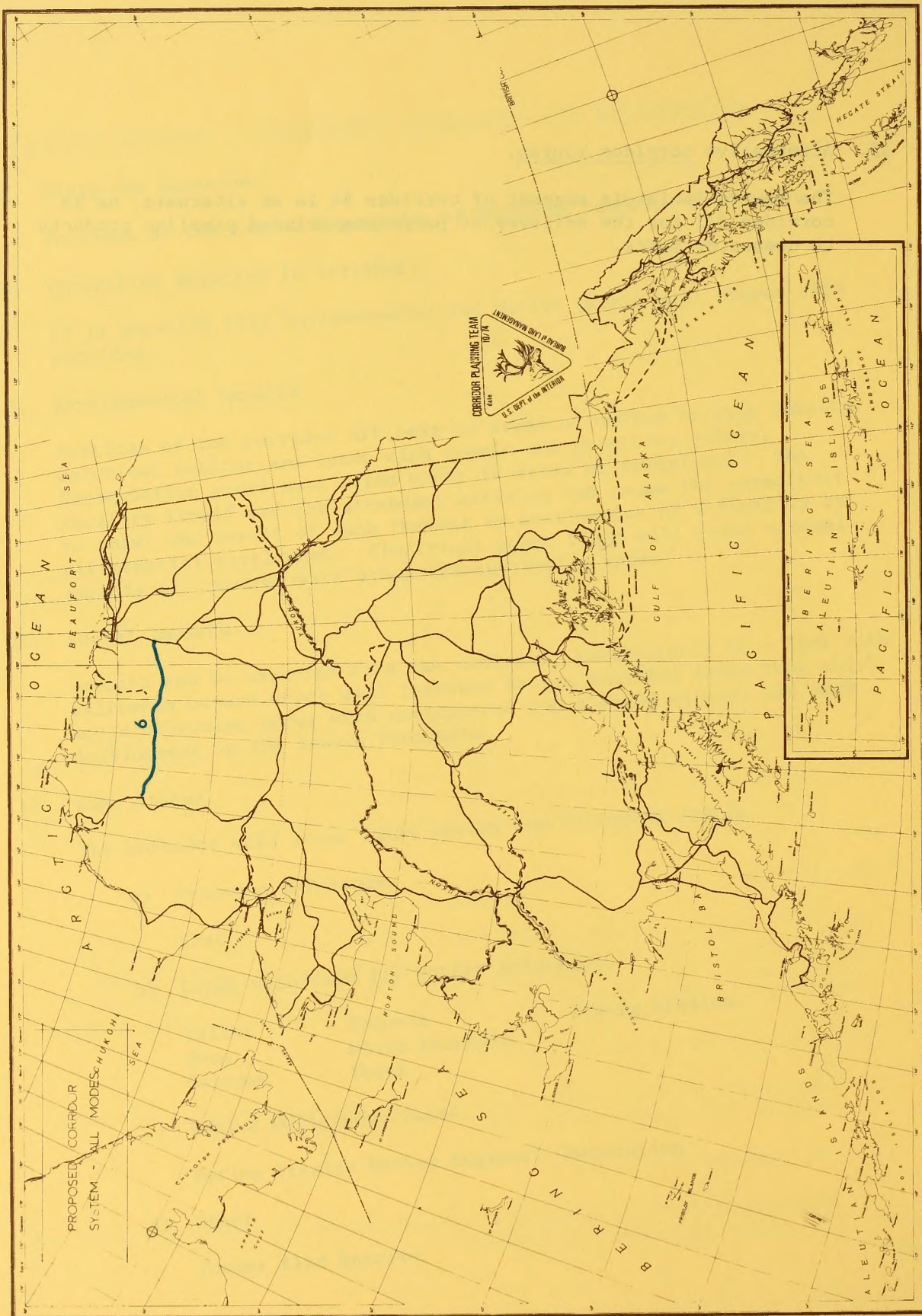
Bering Straits Native Regional Corporation

d) Other.

Former Elim Reserve

12. Alternative corridor routes.

The Seward Peninsula segment of corridor #4 is an alternate, as is corridor #11 for the delivery of petroleum-related pipeline products to deepwater ports.



CORRIDOR #6: PET. 4, EAST

1. Length (miles) approx. 250
2. Route Description:

This east-west corridor extends along the northern foothills of the Brooks Range. Its western terminus is corridor #2 which it intersects in the vicinity of the Shaningarok Creek. The eastern terminus is corridor #26. The route extends eastward from corridor #2 along a series of ridges including the Knifeblade, following a tractor trail to the Colville River in the vicinity of Umiat, crossing the Colville and Tuluga Rivers and continuing on to the vicinity of Sagavanirktok River. At this point it joins with corridor #26.

3. Purposes to be served by the corridor.

Prime reasons:

The principal reason for the corridor is to serve oil and gas resources found on the Arctic Slope. The corridor would allow oil and gas to be carried from the western part of Naval Petroleum Reserve No. 4 to corridor #26. From there it can be shipped to ports or processing facilities in the southern portion of the state.

Secondary reasons:

The corridor could also serve coal exploration activities as well as the ultimate movement of coal into other areas.

4. Mode(s).

The corridor will contain three modes, a highway, a gas pipeline and an oil pipeline. All modes extend the entire length of the corridor.

5. Expected time frame for use.

It is expected that the corridor could be used in 15 to 20 years if development of Naval Petroleum Reserve No. 4 is permitted.

6. Corridor identified by:

The Department of the Navy has identified a corridor from Umiat to corridor #26.

Portions of the corridor have been identified and recommended by the Alaska Department of Highways.

7. Basis for location.

The Alaska Department of Highways location generally was used. Certain segments of the corridor have been changed from the Highway Department's routing; this was done to avoid areas of high biologic value.

8. Opposition expected to corridor.

It is anticipated that environmental and Native groups will oppose this corridor.

9. Environmental Impacts.

The route crosses several areas which have good to high quality scenic and primitive values as well as areas with good to high density waterfowl habitat. It is possible, in the case of surface facilities, that the corridor will act as an impediment to the north-south migration of caribou.

Construction would occur in areas of permafrost. The facilities themselves and the attendant activity can cause the permafrost to thaw. One result of such thawing is the differential settlement of the structure.

10. Social Impacts.

Because of its location away from villages, there are expected few social impacts. However, development of the resources are closely associated with Native areas and, therefore, indirect results may be important.

11. Land Status.

The corridor will cross lands having the following status:

a) Proposed d-2 land.

None

b) Lands withdrawn for Native selection.

None

c) Native deficiency lands.

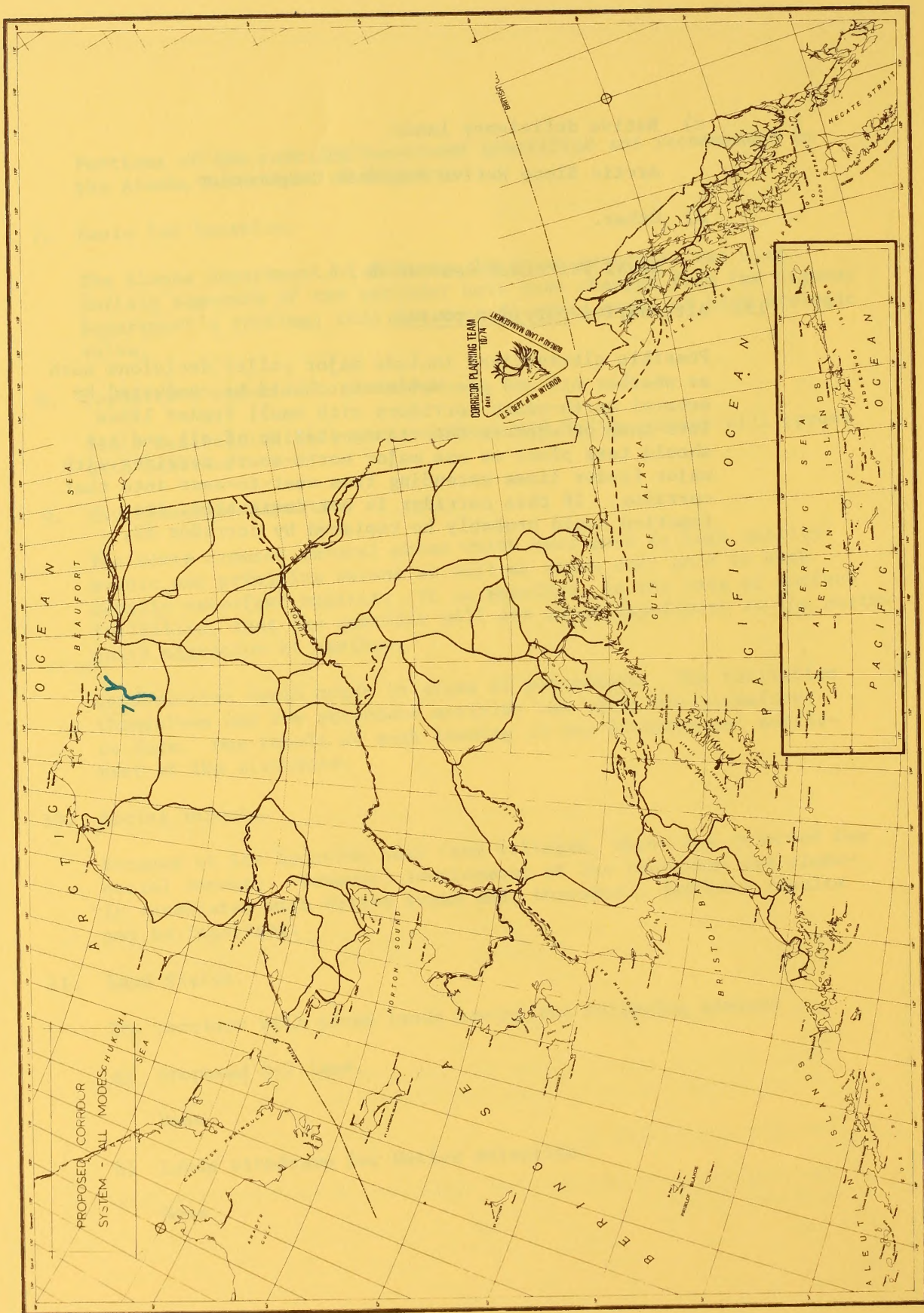
Arctic Slope Native Regional Corporation

d) Other.

Naval Petroleum Reserve No. 4.

12. Alternative corridor routes.

Possible alternatives include major policy decisions such as whether oil and gas movements should be conducted by several north-south corridors with small feeder lines into them or whether the transportation of oil and gas should take place on one major north-south corridor with major feeder lines extending from west-to-east into that corridor. If this corridor is not designated, its function could probably be replaced by corridor #2.



CORRIDOR #7: COLVILLE RIVER

1. Length (miles) approx. 100

2. Route Description:

The Colville River extends from the Beaufort Sea in a generally southwesterly direction for several hundred miles. However, this corridor includes only that part of the river from its mouth to a point immediately south of Umiat. The river is a natural transportation corridor and has been used historically for many years by local residents. The river is frozen in excess of six months of the year.

3. Purposes to be served by the corridor.

Prime reasons:

The corridor will serve as a method of reaching the ocean. Barge traffic can be brought from the ocean up as far as Umiat. The greatest amount of freight brought in will probably be used for oil and gas production on the Arctic Slope.

Secondary reasons:

The corridor will also serve to provide access for freight movement to the Umiat staging area.

4. Mode(s).

It is expected that conventional modes which are in use on this river will continue to be used in the future. These include riverboat and barge. During the winter, when the river is frozen, dog sleds and snowmobile are used. Additional possibilities include the use of air cushioned vehicles for the transport of freight from ocean-going vessels.

5. Expected time frame for use.

The corridor is already in use and will continue to be a major transportation route in the Arctic.

6. Corridor identified by:

This corridor has been recommended by the Corridor Planning Team.

7. Basis for location.

The corridor is an existing transportation corridor.

8. Opposition expected to corridor.

None is known.

9. Environmental Impacts.

Unlike most other corridors on the proposed statewide network, it is not expected that major construction will take place within this corridor. Any construction impacts will be the result of highly localized conditions, but could cause water pollution.

The areas immediately adjacent to the river serve as a medium to high density waterfowl habitat. The use of any vehicle in the area will have varying degrees of impact on the habitat because of noise. Portions of the corridor involve nesting areas for the endangered peregrine falcon.

10. Social Impacts.

The impact of this corridor should be minimal.

11. Land Status.

The corridor will cross lands having the following status:

a) Proposed d-2 lands.

None

b) Lands withdrawn for Native selection.

Nooiksut

c) Native deficiency lands.

Arctic Slope Regional Corporation

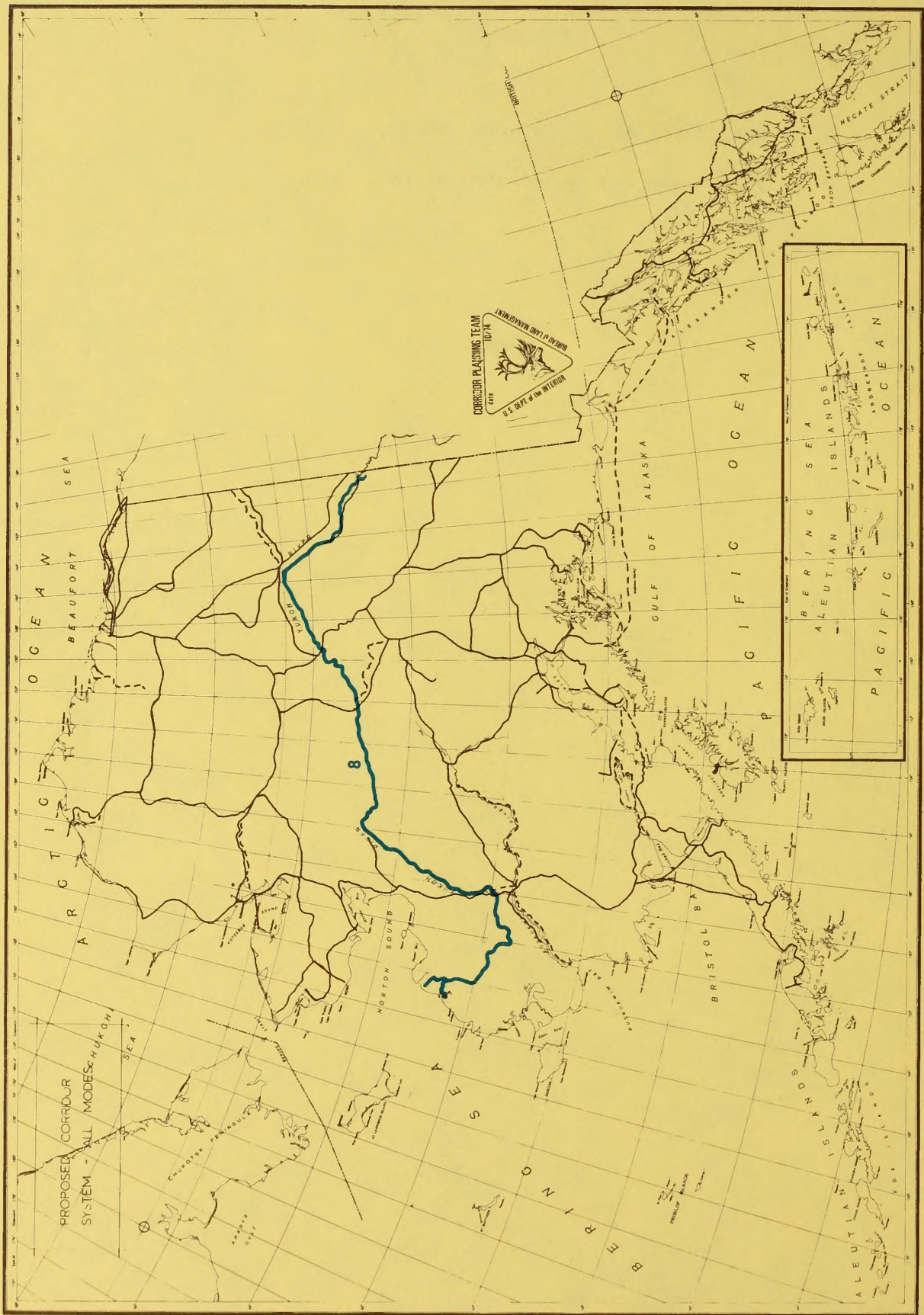
d) Other.

Naval Petroleum Reserve #4

State land

12. Alternative corridor routes.

There are no alternative water routes.



CORRIDOR #8: YUKON RIVER

1. Length (miles) approx. 1200
2. Route Description:

The Yukon extends from the Alaska-Canadian Border to the Yukon Delta at the Bering Sea.

3. Purposes to be served by the corridor.

Prime reasons:

The Yukon River is an existing natural corridor for: (a) water-borne transportation, and (b) over snow/ice transportation. In the future, air cushion vehicle movement may be important. It serves the transportation of goods, commodities and people throughout the center of Alaska as well as fulfilling international treaty obligations.

Secondary reasons:

It provides numerous transshipment points for cargo throughout Interior Alaska. It also provides a corridor for recreational use and subsistence hunting and fishing. It will aid in mineral exploration and development.

4. Mode(s).

Boats, barges and other watercraft, air-cushioned vehicles and other over-the-ice type vehicles can use the river.

5. Expected time frame for use.

It is historically a water transportation corridor and will continue to be one.

6. Corridor identified by:

International Treaty between Great Britain and United States.

7. Basis for location.

The Yukon River has served as a route of commerce perhaps since the advent of man on Alaskan soil. During the Gold Rush Era large amounts of commodities were moved up and down the river. It is still in use today and there are plans for an increase in river barge traffic. Navigation on this

route is guaranteed by the 1871 Treaty of Washington between the United States and Great Britain. It is a direct water route providing for the movement of Canadian goods and commodities to the northern region of the Yukon Territory in Canada, via the Porcupine River.

8. Opposition expected to corridor.

None known.

9. Environmental Impacts

Water quality and fisheries could be impacted through water pollution by spillage of oils or other chemicals. Sediment would be increased from harbor and dock construction and maintenance. Washing of river banks by wave action is likely with continuous use. Peregrine falcon nesting in areas of the upper portion near the Canadian border and waterfowl could be impacted as a result of a significant increase in traffic and noise.

10. Social Impacts.

There would no doubt be some social impact on Native village lifestyles if this corridor receives a substantial increase in use. However, the increased use of this river system could also bring jobs, cheaper freight rates and provide transportation for Native-owned resources to market areas.

11. Land Status.

The corridor will cross lands having the following status:

a) Proposed d-2 lands.

Yukon-Charley National Rivers
Yukon Flats National Wildlife Refuge
Yukon-Kuskokwim National Forest
Yukon Delta National Wildlife Refuge

b) Lands withdrawn for Native selection.

Eagle	Kaltag
Circle	Grayling
Fort Yukon	Anvik
Beaver	Holy Cross
Stevens Village	Russian Mission
Rampart	Ohogamiut
Tanana	Marshall
Ruby	Pilot Station
Galena	St. Mary's
Koyukuk	Pitkas Point

Nulato
Mountain Village
Emmonak
Alakanuk
Kotlik
Bill Moore's
Hamilton

c) Native deficiency lands.

Doyon Native Regional Corporation
Calista Native Regional Corporation

d) Other.

Rampart Power Withdrawal
Clarence Rhode National Wildlife Range.
d-1

12. Alternative corridor routes.

There is no viable water route alternate proposal for the Yukon River. Proposals to construct a paralleling rail or highway network would be an alternative surface transportation route. A proposed canal between the Yukon and Kuskokwim Rivers, corridor #10, would increase the use of this corridor by shortening the barging distance, and extending the barging season by a month or more.

CORRIDOR #9: KUSKOKWIM RIVER

1. Length (miles) approx. 300

2. Route Description:

This route extends from McGrath in the upper Kuskokwim Valley downriver to the Kuskokwim Bay in the Bering Sea.

3. Purposes to be served by the corridor.

Prime reasons:

The Kuskokwim River is an existing natural transportation corridor for: (a) waterborne transportation and (b) over snow/ice transportation. In the future air-cushion vehicle movement may be important. It provides transportation of goods, commodities and people.

Secondary reasons:

Provides recreational opportunities as well as subsistence hunting and fishing uses. Will provide opportunity for mineral exploration and development and numerous transshipment points for inland distribution of goods and commodities.

4. Mode(s).

Boats, barges, watercraft, air-cushioned vehicles, over-snow vehicles and other over-the-ice type of vehicles can use this river as a corridor.

5. Expected time frame for use.

This is an historic transportation route which is presently being used and will continue to be used.

6. Corridor identified by:

Bureau of Land Management, Corridor Planning Team.

7. Basis for location.

This river has been a route of commerce perhaps since the advent of man on Alaskan soil. It has been used for mineral exploration and

the movement of many commodities. Small ships still come up the river to Bethel, where goods are then barged up from there.

8. Opposition expected to corridor.

None known.

9. Environmental Impacts.

Potential spillage of oils or chemical products, causing water pollution, sediment from harbor and/or dock construction, dredging, and maintenance degrading water quality, and washing of river banks by wave action with continuous use are possible. All waterfowl areas could be impacted as a result of increased use and noise from mechanized traffic.

Probable fisheries impact will result from increased use which will also require increased navigational maintenance.

10. Social Impacts.

There would probably be some impact on Native village life style if this corridor receives a substantial increase in use. The increased use of this system could also result in jobs and cheaper freight rates for movement of Native-owned resources.

11. Land Status.

The corridor will cross lands having the following status:

a) Proposed d-2 land.

Yukon-Kuskokwim National Forest

b) Lands withdrawn for Native selection.

Tuntutuliak	Kalskag	Red Devil
Napaskiak	Lower Kalskag	Georgetown
Oscarville	Aniak	Sleetmute
Kwethluk	Napaimute	Stony River
Akiak	Crooked Creek	McGrath
Akiachak	Bethel	Napakiak
Tuluksak		Russian Mission (Chuathbaluk)

c) Native deficiency lands.

Calista Native Regional Corporation.

Doyon Native Regional Corporation.

d) Other.

None

12. Alternative corridor routes.

There is no viable alternative to this river transportation route. Portions of the surface transportation network in corridor #13 could also serve this area.

CORRIDOR #10: YUKON—KUSKOKWIM CANAL

1. Length (miles) approx. 30
2. Route Description:

This north-south river transportation corridor lies between the Yukon and Kuskokwim Rivers. It is coincident with a segment of the north-south Corridor #11 in the vicinity of Aniak.

From a point about 20 miles southeast of Holy Cross on the Yukon River, the canal extends in a general southeasterly direction to an area on the Kuskokwim River, generally between Aniak and Crow village (abandoned), 8 miles to the west.

3. Purposes to be served by the corridor.

Prime reasons:

A canal can provide up to two months of additional ice-free navigation into the Yukon River. This would significantly shorten the barging route and barging time into the Yukon River; it would provide deeper shipping waters than the shallower lower Yukon.

Secondary reasons:

Secondary reasons include improved transportation mode for bulk cargo, movement of people, movement of petroleum and mineral exploration equipment, movement of forest products to market, and possible movement of agricultural products if they are developed in this region.

4. Mode(s).

The water mode provides for boats, barges, watercraft, air-cushioned vehicles, over-snow vehicles and other types of over-the-ice vehicles.

5. Estimated time frame for use.

The corridor could be used by 2001.

6. Corridor identified by:

The Corps of Engineers studied the canal some 40 years ago; the concept was deemed economically unfeasible. The Corps of Engineers is completing a new study of the canal.

7. Basis for location.

The earlier study location by Corps of Engineers was used. This location was an existing tramway connecting the two rivers.

8. Opposition expected to corridor.

The U.S. Fish and Wildlife Service and possibly environmental groups are expected to oppose the corridor.

9. Environmental Impacts.

Water quality could be affected from oil spillage, and additional sediment from building and maintenance of docks and facilities. Water interchange could have a major impact on anadromous fisheries. Waterfowl habitats could be disturbed because of possible land drainage and because of noise and traffic of mechanized vehicles. Permafrost degradation is possible as well as impacts from hydrologic flow changes.

10. Social Impacts.

These impacts include increased availability of jobs during construction, better distribution of bulk cargo after the canal is open and greater mobility for subsistence. At the same time, sport hunting and fishing could impact subsistence hunting and fishing, as well as alter life styles of the residents in the area.

11. Land Status.

The corridor will cross lands having the following status:

- a) Proposed d-2 land.

Yukon Delta National Wildlife Refuge

b) Lands withdrawn for Native selection.

Kalskag
Lower Kalskag
Aniak

c) Native deficiency lands.

None

d) Other.

None

12. Alternative corridor routes.

The canal is intended to serve the barge traffic and make better use of water navigation between the Yukon and Kuskokwim Rivers (corridors 8 and 9).



CORRIDOR #11: KOYUK—KAMISHAK BAY

1. Length (miles) approx. 650
2. Route Description:

This north-south route connects with corridors #1 and #5 in the vicinity of Koyuk. It begins on the southeastern side of the Seward Peninsula, on the upper east fork of the Koyuk River, about 15 to 20 miles inland of Norton Sound, and proceeds south along the foothills of the Nulato Hills into the Anvik River drainage, to just west of the village of Anvik. From there, generally paralleling the western side of the Yukon River, it continues south to the Kuskokwim River, just west of Aniak. The corridor heads southeasterly up the Aniak River drainage to the east side of the Kilbuck Mountains. Continuing on, it swings south of Togiak Lake, turning southeasterly below Nunavaugaluk Lake on into the Dillingham area. Heading east it crosses the Nushagak River, and then the Kvichak River above the village of Levelock. It proceeds eastward, staying south of Iliamna Lake, crossing the upper extremity of the Alaska Peninsula, terminating on the shoreline of Kamishak Bay. In addition to those already mentioned, it ties into corridors #8, #17, #18, #19 and #37. For a short distance, it is coincident with corridor #10.

3. Purposes to be served by the corridor.

Prime reasons:

These are energy related: crude oil and natural gas pipelines, with accompanying highway, are required to transport such products to ice-free ports on the coast, or to potential refining petrochemical and industrial plant sites. Pipelines would serve the western onshore North Slope oil basins, Kotzebue, Yukon-Koyukuk and Bering Sea basins; and the offshore Chukchi, Hope and Bering Sea provinces. The highway serves the dual purposes of pipeline construction, support and maintenance.

Secondary reasons:

The corridor provides access to explore and develop other energy sources and possible mining operations, and provides transportation for people, goods, commodities and products. It will provide increased access for subsistence hunting and fishing, fire control, and land management, as well as provide opportunity for enjoying scenic and recreation values.

4. Mode(s)

Three modes are contained within the entire corridor: oil pipeline, gas pipeline, and highway.

5. Expected time frame for use.

The corridor could be used as early as 1985. Extensive geophysical exploration work has been done in past years. Actual drilling exploration in the general area has been limited to two wildcat wells in the

past seventeen years. However, three well locations have been staked in the Kotzebue area by Standard Oil Company of California, with drilling to commence by early 1975.

The degree of success of an active drilling program to establish commercial oil and gas reserves directly relates to the time when the corridor will be needed. Pending success of drilling, it is reasonable to conclude that within five or six years sufficient discoveries and subsequent development of production could dictate pipeline transport by 1985.

6. Corridor identified by:

A great portion of this corridor was recommended as a transportation corridor by the Alaska Department of Highways. The Bureau of Land Management recommended that a pipeline system be included to serve potential high value oil and gas sedimentary basins along the western coast.

7. Basis for location.

Alaska Department of Highways location generally was used. The Department conducted an engineering survey in August 1968 for an approximate 80-mile route from Kvichak, staying south of Iliamna Lake to Kamishak Bay.

8. Opposition expected to corridor.

Opposition is expected from conservationists, the U.S. Fish and Wildlife Service, and probably the State of Alaska, Department of Natural Resources, Division of Parks. Bethel representatives have stated that they do not desire a surface connection with Dillingham.

9. Environmental Impacts.

Water quality could be affected from oil spillage, additional sediment and erosion. Port construction or dredging could affect the water quality. There is also the possibility of permafrost degradation in areas where permafrost exists. Primitive land values could be impacted and waterfowl habitats disturbed. Sport and anadromous fisheries could be affected and hydrologic flow changes are probable. Noise levels would increase, particularly during construction.

10. Social Impacts.

The major social impacts of any pipeline will be during construction. After any line is completed and operational, most social impacts will be reduced except at the area where production is occurring.

The impact of a highway can be both beneficial and detrimental. It will permit transportation of Native-owned resources to market areas. At the same time, the costs of locally used commodities could be

reduced while their availability is increased. Social interchange between Native villages will be facilitated; mobility and improved economy will make the Natives more dependent on lifestyles alien to them and could hasten the change from the traditional to a more modern lifestyle.

11. Land Status.

The corridor will cross lands having the following status:

a) Proposed d-2 lands.

Togiak National Wildlife Refuge
Iliamna National Resource Range
Yukon Delta National Wildlife Refuge

b) Lands withdrawn for Native selection.

Koyuk	Holy Cross	Igiugig
Shaktoolik	Aniak	Aleknagik
Unalakleet	Dillingham	New Stuyahok
Grayling	Ekwok	Clark's Point
Anvik	Levelock	

c) Native deficiency lands.

Doyon Native Regional Corporation
Calista Native Regional Corporation

d) Other.

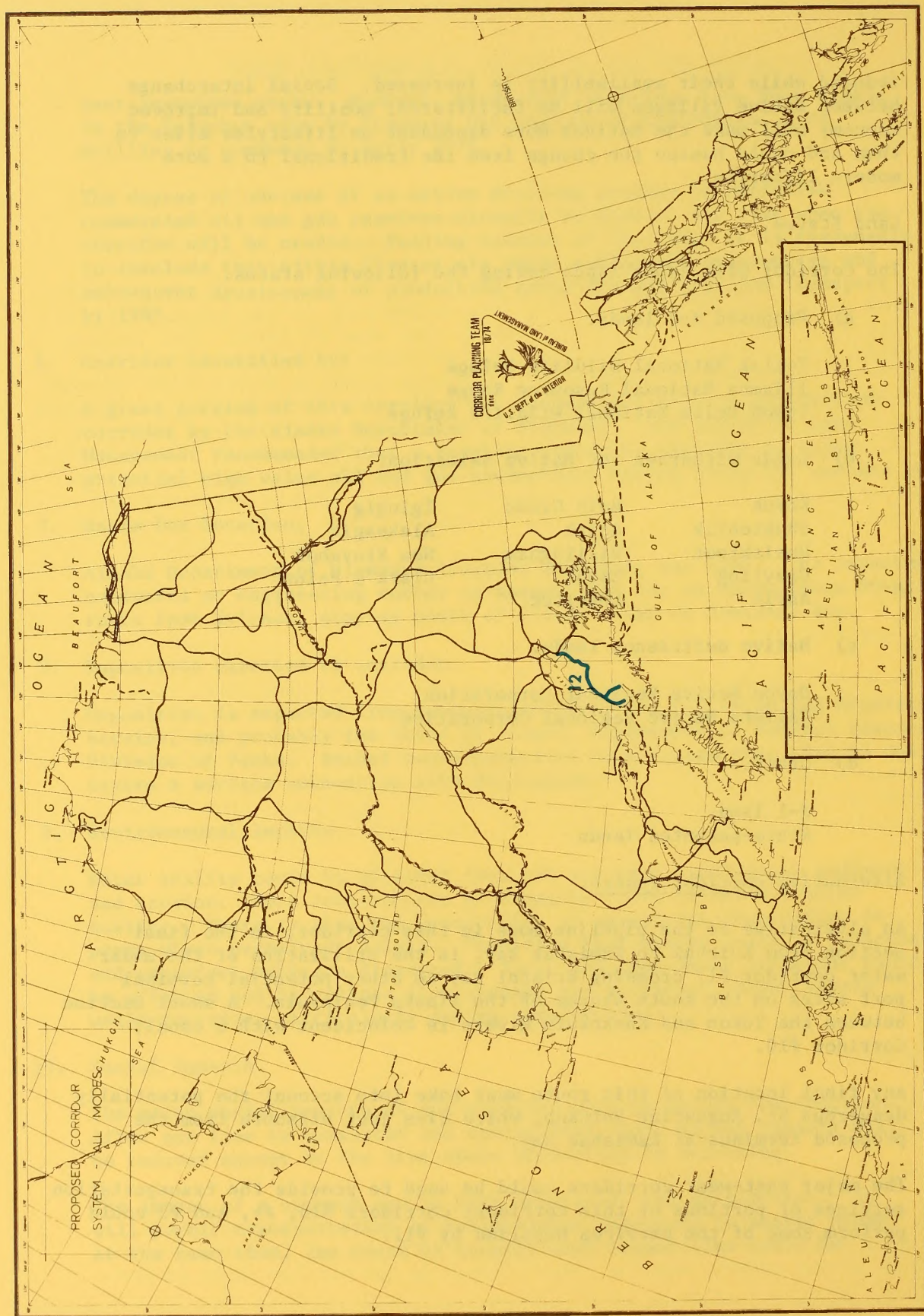
d-1 land
State-patented lands

12. Alternative corridor routes.

An alternative to the pipeline mode in this corridor, in the final section from Kvichak to Kamishak Bay, is the utilization of the under-water corridor #17 crossing Bristol Bay to other potential terminal port sites on the south shores of the Alaska Peninsula. A short section between the Yukon and Kuskokwim Rivers is coincident with a canal, Corridor #10.

Any final location of this route must take into account the potentially dangerous St. Augustine Volcano, which lies just offshore from the proposed terminus at Kamishak Bay.

The major east-west corridors could be used to provide the transportation services of portions of this corridor; corridors #13, #4, and #3 could perform some of the services supplied by #11.



CORRIDOR #12: ANCHORAGE—HOMER POWER GRID

1. Length (miles) approx. 180
2. Route Description:

Beginning in the Anchorage area, this essentially north-south route proceeds easterly approximately 20 miles before crossing the Turnagain Arm onto the Kenai Peninsula. The route goes to the Soldotna area, thence south along the Sterling Highway to the Homer area. From the Clam Gulch area, a spur leads east to the Bradley Lake Project.

3. Purposes to be served by the corridor.

The prime reason for the corridor is the transmission of electrical power.

Secondary reasons:

None identified.

4. Mode(s).

Overhead lines on land and possibly an underwater-cable crossing of Cook Inlet are the most likely modes of transmission.

5. Expected time frame for use.

This corridor could come into use by 1990.

6. Corridor identified by:

The Alaska Power Administration identified this corridor.

7. Basis for location.

The Alaska Power Administration's location was used; in the area from Soldotna to Homer the route parallels the existing highway.

8. Opposition expected to corridor.

The U.S. Fish and Wildlife Service may possibly object to this corridor.

9. Environmental Impacts.

The Bradley Lake Hydropower Project would have impacts on stream flow and sediment loads. Water from the lake flows into Kachemak

Bay. Bradley Lake is glacial, and fisheries impacts are not known. Alteration of flows into Kachemak Bay may have impacts on commercial fishing for fish, shrimp and crabs. Powerlines from the proposed project could impact the scenic vista along the route, being most noticeable along the road. Soil impacts would be minimal, as would water impacts. The transmission line would pass near a key waterfowl migration and nesting area just south of Anchorage.

10. Social Impacts.

Power dependability will be improved for the Kenai Peninsula communities. Impacts during construction will be noise and short-term overloading of social services.

11. Land Status.

The corridor will cross lands having the following status:

a) Proposed d-2 land.

None

b) Lands withdrawn for Native selection.

City of Kenai
Kasilof
Ninilchik

c) Native deficiency lands.

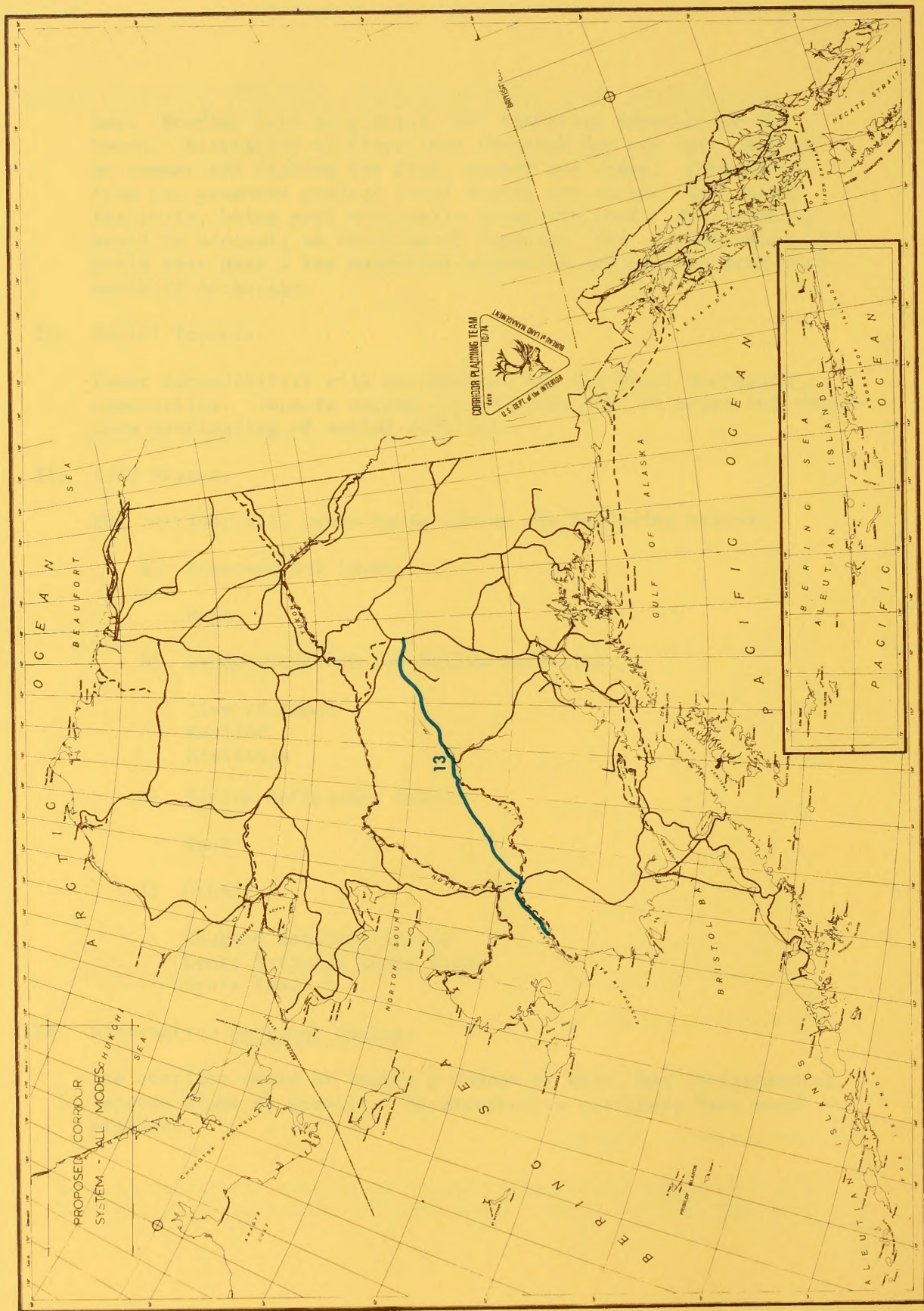
None

d) Other

Chugach National Forest
Kenai National Moose Range
State lands

12. Alternative corridor routes.

The corridor could be routed a number of ways, but environmental impacts might be greater. No alternative corridors have been proposed.



CORRIDOR #13: BETHEL—REX

1. Length (miles) approx. 500
2. Route Description:

This essentially east-west corridor connects the lower Yukon-Kuskokwim delta region with the existing Anchorage-Fairbanks Highway in the Interior. From Bethel, the route follows the north side of the Kuskokwim River to the Aniak area; linking corridors #9, #10, #11, then up the Owhat River, northeasterly down the Iditarod River to near Flat. From there it proceeds northeasterly to near Takotna and on just north of Nikolai, meeting corridor #35, then follows the North Fork of the Kuskokwim, near Medfra, on-to-near Telida to north of Lake Minchumina, and on to the Anchorage-Fairbanks Highway near Rex. The route intersects corridor #14 about 20 miles west of the Anchorage-Fairbanks Highway.

3. Purposes to be served by the Corridor.

Prime reasons:

This corridor provides for the transport of oil and gas products from the wells to corridor #29 and provides access to explore and develop areas of potential mineral value. The corridor will provide a link between the lower Yukon-Kuskokwim delta to the Interior of the State.

Secondary reasons:

A secondary reason is to serve the harvest and management of timber as some of the better commercial stands in the Interior of Alaska are found along the Kuskokwim drainages; to serve the development of potential agriculture lands; and to serve recreation needs.

4. Mode(s).

Oil and gas pipelines and a highway are contained within this corridor.

5. Expected time frame for use.

Need for this corridor is expected to develop by 1990 to 2000.

6. Corridor identified by:

The Alaska Department of Highways and the Bureau of Land Management identified this corridor.

7. Basis for location.

The Alaska Department of Highways' location was generally used.

8. Opposition expected to corridor.

Conservationists and Native groups are expected to oppose this corridor.

9. Environmental Impacts.

Water quality will be impacted from any additional erosion and sediment, hydrologic flow changes and permafrost degradation. Sport and anadromous fisheries could be impacted. Waterfowl disturbance would be limited. Potential permafrost degradation will be a constant problem throughout the entire corridor.

10. Social Impacts.

This corridor will link Interior and Western Alaska, altering lifestyles and the economic base of areas, particularly near the Kuskokwim Bay and Bering Sea.

11. Land Status.

The corridor will cross lands having the following status:

a) Proposed d-2 lands.

Mt. McKinley National Park Additions
Yukon-Kuwkokwim National Forest
Yukon Delta National Wildlife Refuge

b) Lands withdrawn for Native selection.

Bethel	McGrath
Aniak	Nikolai
Takotna	Telida
Kalskag	Akiachak
Lower Kalskag	Oscarville
Napaskiak	Napakiak
Kwethluk	Akiak
Tuluksak	Russian Mission (Chuathbaluk)

c) Native deficiency lands.

Doyon Native Regional Corporation

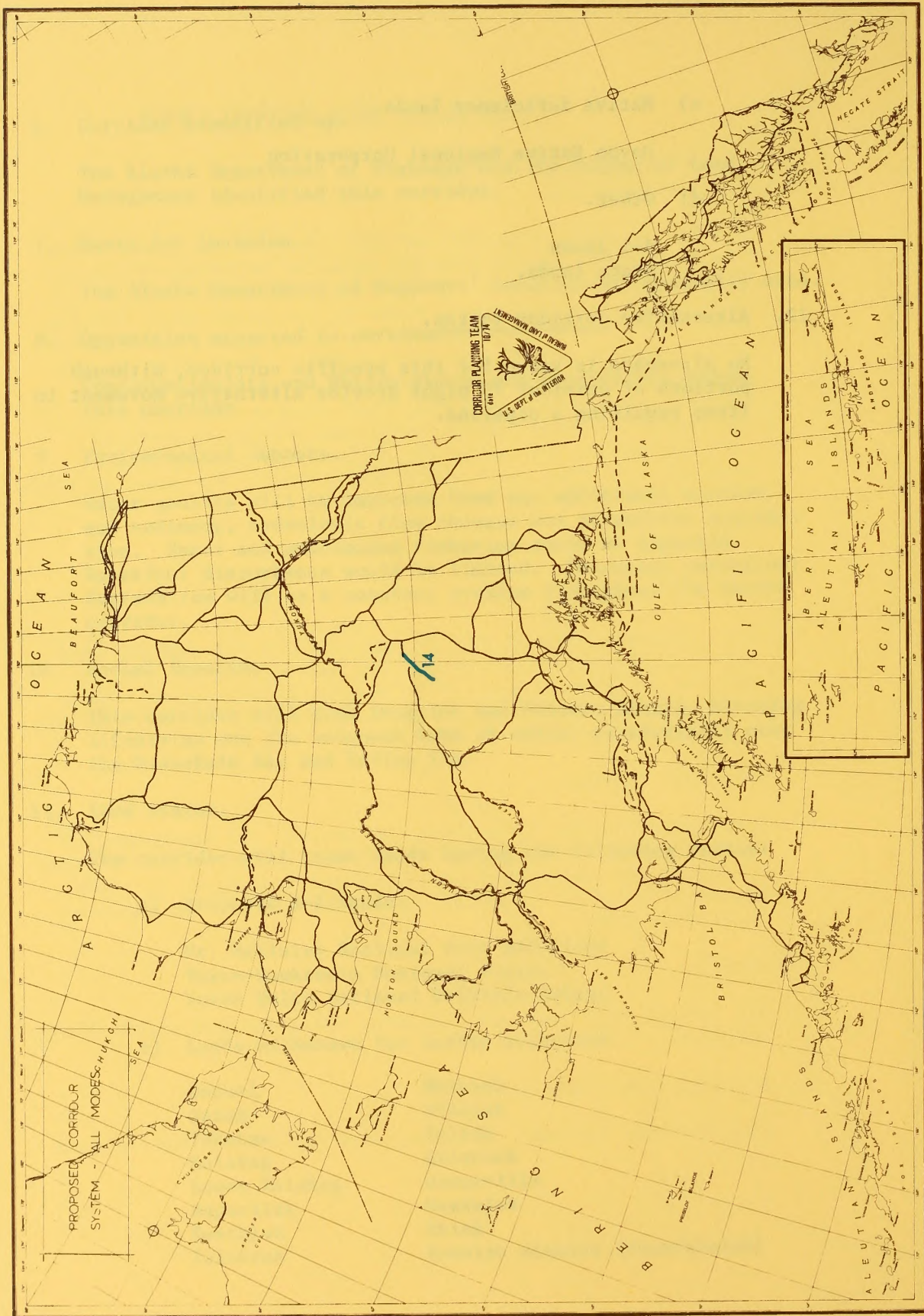
d) Other.

d-1 lands

State lands.

12. Alternative corridor routes.

No alternate is known for this specific corridor, although portions of corridor #9 might provide alternative movement to items requiring a pipeline.



CORRIDOR #14: KANTISHNA SPUR

1. Length (miles) approx. 25
2. Route Description:

This north-south spur connects with the east-west Corridor #13 just west of the Teklanika River. From there it generally proceeds southwesterly along the north side of the Kantishna Hills to Kantishna, on the existing north boundary of Mount McKinley National Park. Kantishna is presently connected to the Anchorage-Fairbanks Highway by a road through Mount McKinley National Park.

3. Purposes to be served by the corridor.

Prime reasons:

Access will be provided to active mining areas with known deposits of gold, silver, lead, tin and antimony.

Secondary reasons:

Access to the north side of Mount McKinley National Park would be useful for recreational purposes.

4. Mode(s).

A highway is the only mode in this corridor.

5. Expected time frame for use.

1980 to 1990 has been identified as the expected time for development.

6. Corridor identified by:

The Federal-State Land Use Planning Commission recommended that Kantishna be connected to Anchorage-Fairbanks Highway by a northern connection (north of McKinley); State Highway Department.

7. Basis for location.

The route was selected on the basis on topographic maps and soils maps; the State Highway Department identified a route.

8. Opposition expected to this corridor.

Conservationist groups, Native groups and the National Park Service may voice opposition to this corridor.

9. Environmental Impacts.

Present mineral production traffic could be removed from Mount McKinley National Park. Water quality would be affected by additional erosion and sediment, hydrologic flow changes and permafrost degradation. Primitive value impact would be significant in an area recommended for park expansion.

10. Social Impacts.

The road would provide an opportunity for additional access to Mount McKinley National Park. Some effect on Kantishna will be inevitable because of direct connection to the Anchorage-Fairbanks Highway.

11. Land Status.

The corridor will cross lands having the following status:

a) Proposed d-2 lands.

Mount McKinley National Park additions.

b) Lands withdrawn for Native selection.

None.

c) Native deficiency lands.

Doyon Native Regional Corporation.

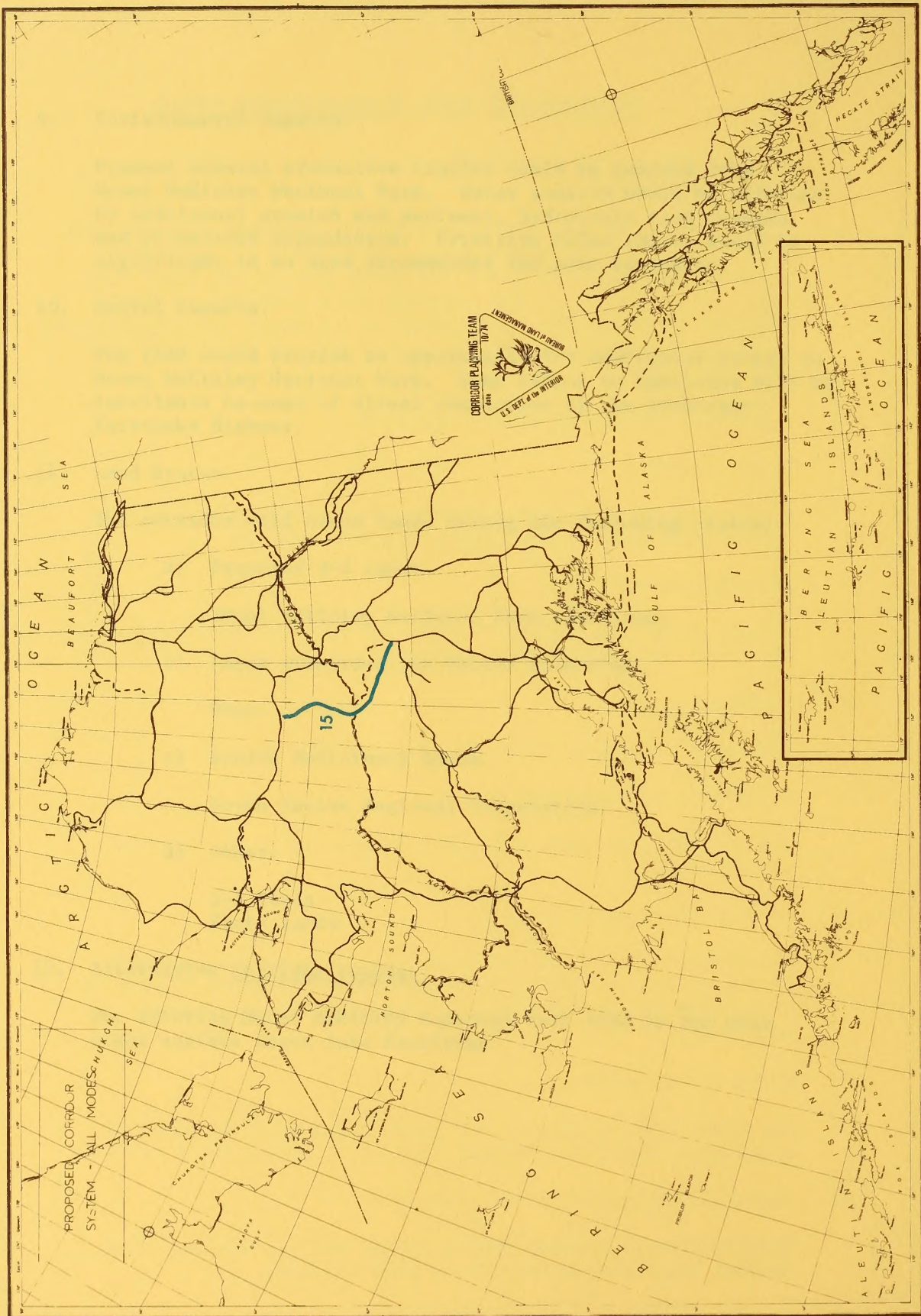
d) Other.

d-1 lands

State lands

12. Alternative corridor routes.

The existing Mount McKinley National Park road is the only other surface route into Kantishna.



CORRIDOR #15: ALLAKAKET—NENANA, RAIL

1. Length (miles) approx. 250

2. Route Description:

This north-south railroad corridor connects with corridors #4 and #8, both of which are essentially east-west corridors. It also connects on the south with the north-south existing corridor #29.

From a junction with corridor #4, the corridor extends in a southerly direction crossing the Koyukuk River near Alatna. It follows the Kanuti River basin southward, crossing the Ray Mountains and then following the Tozitna River basin to the Yukon River, crossing about midway between Grant Creek and Tanana. From the Yukon River the corridor turns southeasterly generally paralleling but south of the Tanana River, taking advantage of lower lying country and moderate grades. Between the Yukon River and the southern terminal at Nenana, a number of river crossings are required: the Chitanana, Cosna, Zitziana and Kantishna.

3. Purposes to be served by the corridor.

Prime reasons:

The prime reason is to link the northwest by a more extensive rail service to serve mineral exploration and development in the upper Koyukuk, Kobuk and the Seward Peninsula as well as the development of the North Slope coal deposits.

Secondary reasons:

A secondary reason is to provide transportation for people, goods and commodities. It will also provide increased fire control, and access for oil and gas exploration and drilling activities in the Middle Tanana Basin.

4. Mode(s).

A railroad is the sole transportation mode in the corridor.

5. Expected time frame for use.

Development of facilities is projected for 1984 to 1994.

6. Corridor identified by:

The Alaska Railroad and Alaska Department of Highways identified the corridor.

7. Basis for location.

Earlier preliminary surveys were made by the Alaska Railroad.

8. Opposition expected to corridor.

No opposition is known.

9. Environmental Impacts.

Water quality would be affected by erosion and sediment increases, hydrologic flow changes and permafrost degradation. Disturbance of fisheries (sport and anadromous) and waterfowl will be limited. Primitive land values would be altered. The corridor will impact the Kanuti Flats, which is a caribou wintering ground.

10. Social Impacts.

The corridor could dramatically affect the cost and availability of bulk cargo. Shipping by rail from the Interior will also affect to some degree the residents living in near proximity to the corridor.

The impact north of the Yukon would probably be greater than that to the south.

11. Land Status.

The corridor will cross lands having the following status:

- a) Proposed d-2 lands.

None

b) Lands withdrawn for Native selection.

Tanana	Nenana
Allakaket	Alatna
	Manley Hot Springs

c) Native deficiency lands.

Doyon Native Regional Corporation

d) Other.

State lands
d-1 lands

12. Alternative corridor routes.

An alternative proposal to this may be the Fairbanks to Yukon River portion of corridor #27 and the Yukon River to Bettles portion of corridor #26. This is the only existing surface route north of the Yukon River, although it has steeper grades.



CORRIDOR #16: PORT ALSWORTH, COPPER

1. Length (miles) approx. 80
2. Route Description:

This route extends from an area near Port Alsworth to the north side of Iliamna Lake, then eastward to Pile Bay, then up the Iliamna River through the Chigmit Mountains to Iniskin Bay.

3. Purposes to be served by the corridor.

Prime reasons:

The corridor will allow development and production of copper reserves near Port Alsworth. The highway would allow heavy ore-hauling vehicles to serve mining operations. The accompanying mineral slurry pipeline would provide a means to deliver copper or other minerals to the coast.

Secondary reasons:

The corridor would also provide access for other mineral exploration and development, and to provide transportation for people and goods. It will also provide increased opportunity for sport and anadromous fish management, fire control, and recreation to Iliamna Lake and Lake Clark.

4. Mode(s).

A mineral slurry pipeline and a highway would be contained in the corridor.

5. Expected time frame for use.

Transportation needs could develop by 1984 to 1994.

6. Corridor identified by:

This is part of a much more extensive corridor recommended by the Alaska Department of Highways. The Bureau of Land Management recommended the mineral slurry pipeline.

7. Basis for location.

Alaska Department of Highways conducted an engineering study of the route.

8. Opposition expected to corridor.

Native groups and conservationists may oppose development of this corridor.

9. Environmental Impacts.

Water quality would be affected by increased sediment and erosion as well as slurry pipeline waste products, hydrological flow changes and permafrost degradation. There could be waterfowl habitat disruption and increased pressure on the sport fisheries from water pollution. This area is of prime importance to one of the world's largest red salmon fisheries.

10. Social Impacts.

Increased employment opportunities would exist both during and after construction. Increased mobility and social communication, and increased dependence on a cash economy, if mining becomes a reality, could hasten lifestyle changes.

11. Land Status:

The corridor will cross lands having the following status:

a) Proposed d-2 land.

None

b) Lands withdrawn for Native selection.

Nondalton

Iliamna

Newhalen

Pedro Bay

c) Native deficiency lands.

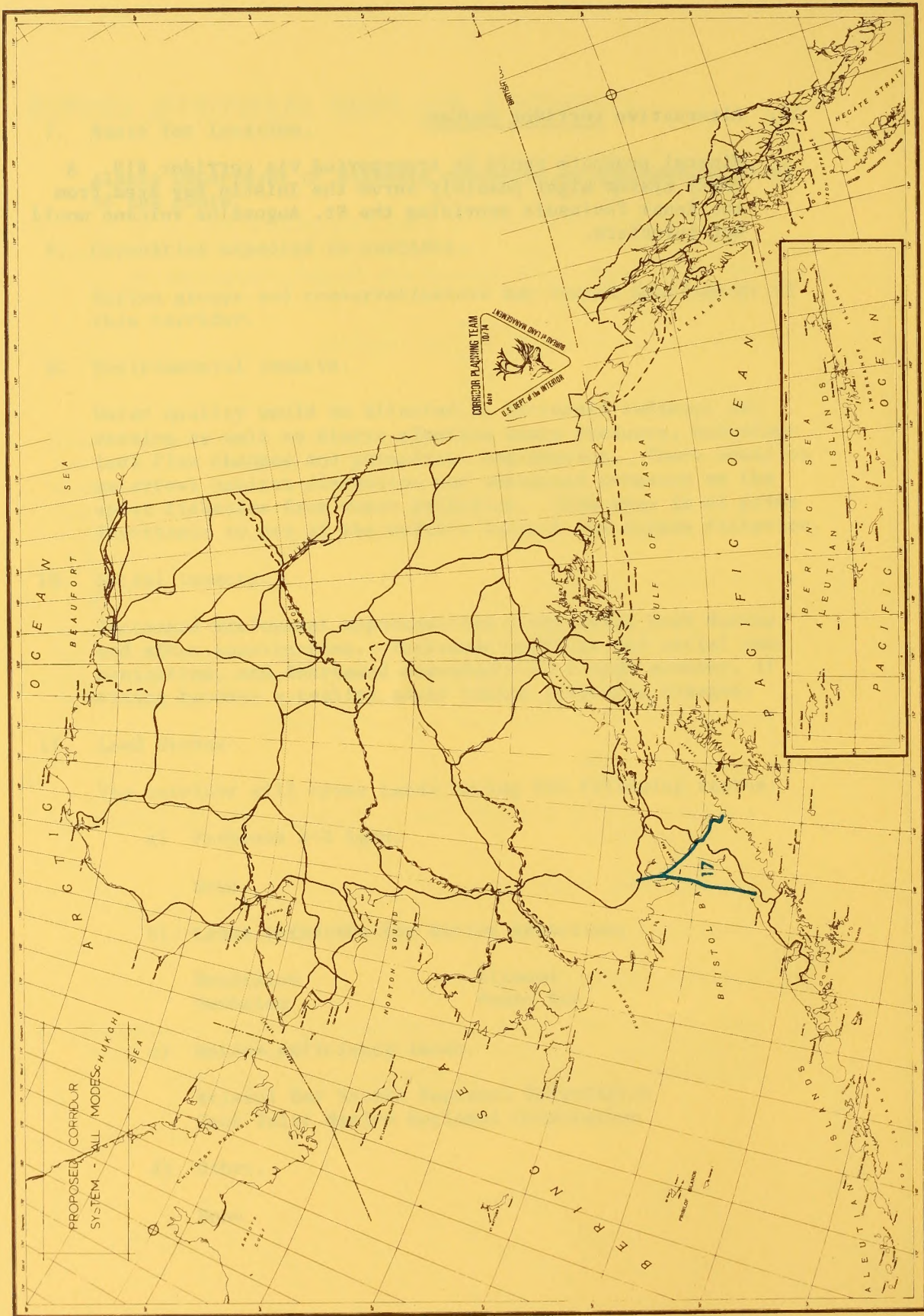
Bristol Bay Native Regional Corporation
Cook Inlet Native Regional Corporation

d) Other.

None

12. Alternative corridor routes.

Mineral products could be transported via corridor #19. A ferry system might possibly serve the Iniskin Bay area from the Kenai Peninsula providing the St. Augustine volcano would not interfere.



CORRIDOR #17: BRISTOL BAY PIPELINE

1. Length (miles) approx. (See discussion).

2. Route Description:

Alternate A

Nushagak River to Kanatak Port (150 miles):

This route ties into corridor #11 a few miles north of Dillingham, proceeds south by the village of Old Saltery, into Nushagak Bay, staying under the water across Kvichak Bay to Egegik Bay on the Alaska Peninsula. The final land portion of the route crosses the Alaska Peninsula, staying south of Becharof Lake into the potential port site of Kanatak.

Alternate B

Nushagak River to Chignik Port (200 miles):

This route ties into corridor #11 a few miles north of Dillingham, proceeds south by the village of Old Saltery, into Nushagak Bay, staying under the water across Bristol Bay to Strogonof Point on the Alaska Peninsula. The final land portion of the route transects the Alaska Peninsula to the potential port site of Chignik.

3. Purposes to be served by the corridor.

Prime reasons:

The prime reason is energy related. Crude oil and natural gas pipelines are required to transport such products from potential producing fields to ice-free ports on the coast or to potential petrochemical and industrial plant sites. These two alternate corridor routes are an offshore underwater line in Bristol Bay, to the potential terminal marine ports of Kanatak or Chignik on the Alaska Peninsula.

Secondary reasons:

None identified.

4. Mode(s)

An oil pipeline and a gas pipeline are the two modes in this corridor.

5. Expected time frame for use.

Pending development of oil and gas potentials, need for this corridor is expected by 1984 to 1995.

6. Corridor identified by:

The Bureau of Land Management identified this corridor.

7. Basis for location.

There have been no detailed studies of the route.

8. Opposition expected to corridor.

Residents of the Bristol Bay area, the U.S. Fish and Wildlife Service, conservationists, and the State may oppose either or both alternative corridors.

There is a State statute regulating oil and gas development in the Bristol Bay area. The law states that "The submerged and shorelands lying north of 57 degrees, 30 minutes north latitude and east of 159 degrees, 49 minutes west longitude within the Bristol Bay drainage are designated as the Bristol Bay Fisheries Reserve. Within the Bristol Bay Fisheries Reserve no surface entry permit to develop an oil or gas lease may be issued on State-owned or controlled land until the legislature by appropriate resolution specifically finds that the entry will not constitute danger to the fishery". (Sec. 38.05.140(f))

9. Environmental Impacts.

Water quality would be affected by pipeline construction due to soil disturbances on land and under the water. An oil spillage would also affect water quality and marine life forms and waterfowl. This area supports sea birds, migratory waterfowl and one of the world's largest red salmon industries.

10. Social Impacts.

Pipeline failure or damage, resulting in oil spillage, would affect Bristol Bay salmon fisheries and result in economic losses. Pipeline construction, operation and maintenance present possible interference with fishing boats during fishing seasons.

11. Land Status.

The corridor will cross lands having the following status:

a) Proposed d-2 lands.

None

b) Lands withdrawn for Native selection.

Dillingham	Ekuk
Manokotak	Egegik
Clarks Point	Port Heiden
Chignik Lagoon	Chignik
Chignik Lake	

c) Native deficiency lands.

Bristol Bay Native Regional Corporation
Koniag Native Regional Corporation

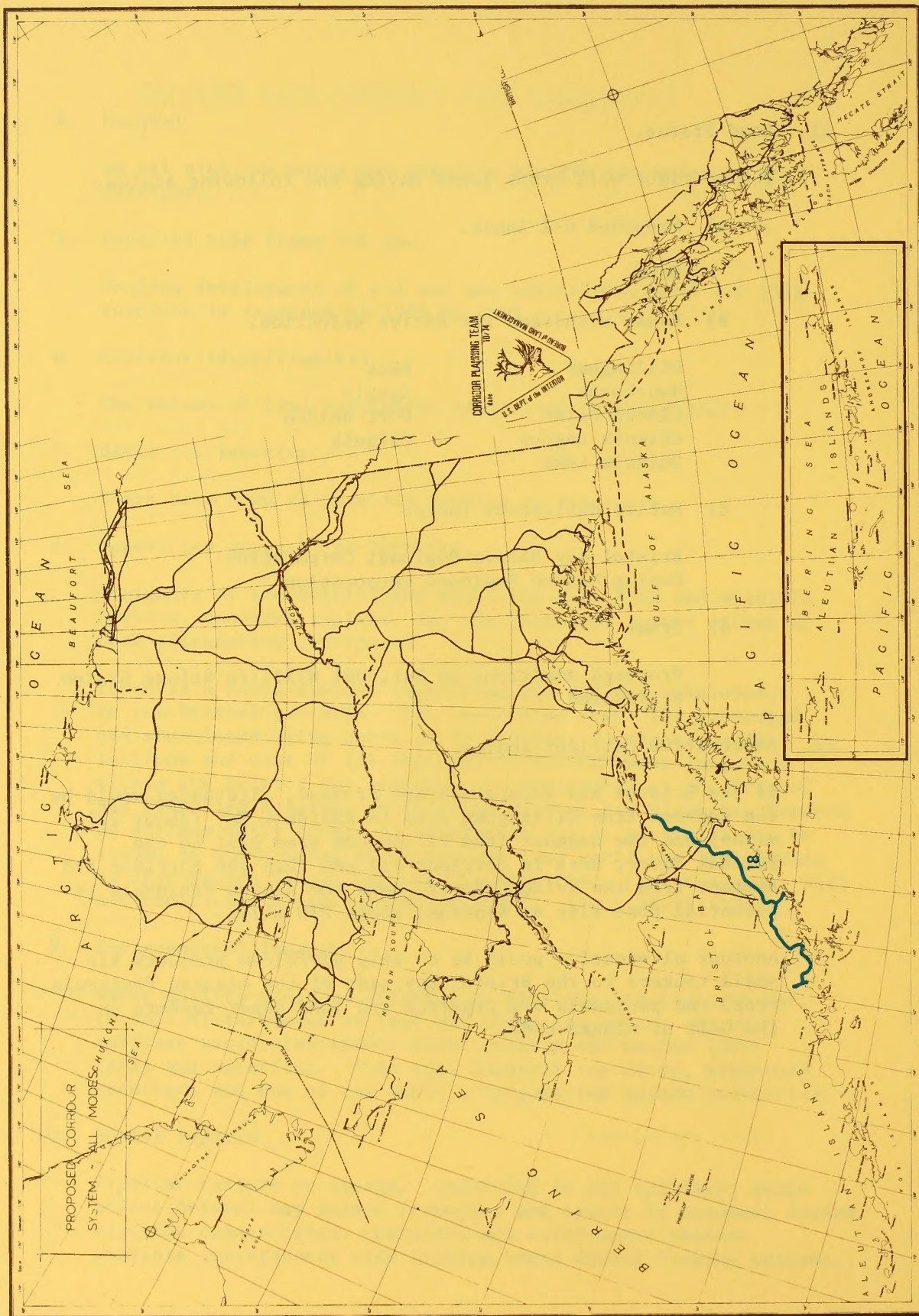
d) Other.

Proposed additions to National Wildlife Refuge System
State land

12. Alternative corridor routes.

If the Bristol Bay waters are not crossed, alternates would be the segment from Dillingham area to Kamishak Bay (about 220 miles) and the segment from Dillingham area east to the Kvichak River, both in corridor #11 and then the corridor #18 segment from the Kvichak River, down the Alaska Peninsula to potential port site at Kanatak, about 290 miles.

Another alternative would be to ship petroleum products via small tankers to the Bristol Bay side of the Alaskan Peninsula, cross the peninsula via pipeline and load super-tankers on the Gulf of Alaska side.



CORRIDOR #18: ALASKA PENINSULA

1. Length (miles) approx. 500
2. Route Description:

This corridor runs almost the entire length of the Alaska Peninsula. From a junction with corridor #11 at the Kvichak River, about 20 miles southeast of Iliamna Lake, the corridor extends in a southwesterly direction down the Alaska Peninsula to Pavlof Bay. The corridor serves three potential all-weather ports on the southeastern or Pacific Ocean side of the Alaska Peninsula. These ports--Kanatak, Chignik, and Pavlof Bay--are also linked to the Bristol Bay side of the Alaska Peninsula by extensions of the principal corridor.

3. Purposes to be served by the corridor.

Prime reasons:

The prime reason is energy-related. The route is the final connecting link between the extensive crude oil and natural gas pipeline system serving the northwest and west regions of Alaska, and terminal sites on the Alaska Peninsula. The terminal sites are potential all weather marine shipping ports, as well as potential sites for refining, petro-chemical and industrial plants. The companion highway terminates at Kanatak, and is not included in the corridor length from Kanatak to Pavlof Bay.

Secondary reasons:

A possible electrical energy transmission route connecting possible geothermal energy sources, transportation for other goods, commodities and people, and access to possible mining operations, are secondary reasons for this corridor.

4. Mode(s).

Oil pipeline, and gas pipeline, power transmission line, and highway are included in the corridor. There are three highway segments along the corridor: Iliamna south to Kanatak Port; Chignik Bay to Port Heiden; and Pavlof Bay north to the Bering Sea.

5. Expected time frame for use.

Depending on oil and gas development, the corridor may be needed by 1984 to 1994.

6. Corridor identified by:

Alaska Department of Highways recommended a similar corridor down the Alaska Peninsula, but extending on to False Pass. The Bureau of Land Management recommended the power transmission grid and the pipeline corridor to transport oil and gas.

7. Basis for location.

Selection was from topographic maps.

8. Opposition expected to corridor.

Native people along or adjacent to this corridor, conservationists, the U.S. Fish and Wildlife Service, and the National Park Service may oppose this corridor.

9. Environmental Impacts.

Three caribou calving areas would be crossed, and migration routes would be disturbed. Brown bears den along several areas of this route and a number of brown bear stream concentration areas are found along the route. Wilderness ranges of brown bear could be altered.

Water quality could be affected by additional sediment from erosion and possible oil spillage from pipelines subject to earthquake damage. Other possible impacts are hydrologic flow changes, disturbance of sport and anadromous fisheries, waterfowl disturbances, or alteration of scenic, primitive and natural area values. Degradation of permafrost near Iliamna is a possibility during construction.

10. Social Impacts.

Increased employment opportunities would exist during construction of pipeline, highway and electrical transmission lines and from operation of mineral processing or transshipment facilities as well as from proposed park and refuge areas.

Pipeline and transmission line social impact would be minimal once operational. Highways bring increased mobility, changing lifestyles. Availability of social services such as medical aid and education could improve.

11. Land Status.

The corridor will cross lands having the following status:

a) Proposed d-2 lands.

Iliamna National Resource Range

b) Lands withdrawn for Native selection.

Naknek	Egegik
Chignik Lake	Chignik Lagoon
Pilot Point	South Naknek
Ugashik	Port Heiden
Chignik	

c) Native deficiency lands.

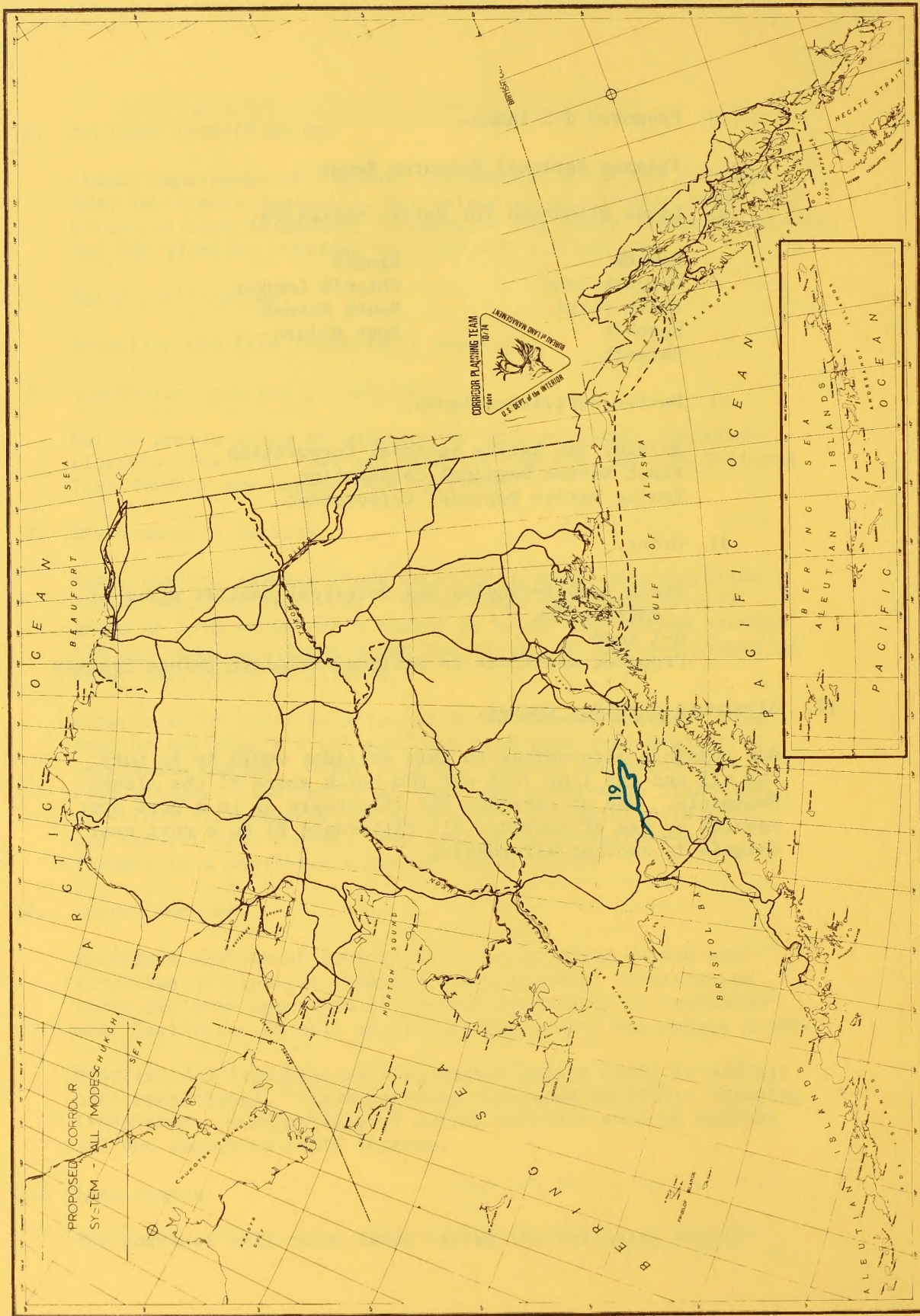
Bristol Bay Native Regional Corporation
Aleut Native Regional Corporation
Koniag Native Regional Corporation

d) Other.

State land including key waterfowl habitat areas at
Port Heiden
d-1 land
Proposed additions to National Wildlife Refuge Systems

12. Alternate corridor routes.

One possible alternative to this corridor would be to bury the oil and gas line just off the north shore of the Alaska Peninsula. Use of corridor #17 (Alternate A) to a port near Kanatak or use of corridor #17 (Alternate B) to a port near Chignik is another alternative.



CORRIDOR #19: ILIAMNA LAKE

1. Length (miles) approx. 150
2. Route Description:

This corridor is the body of water known as Iliamna Lake and its outlet stream, the Kvichak River. The Kvichak flows into Bristol Bay.

The lake is the seventh largest freshwater lake in the United States, about 1,000 square miles in size. The Kvichak River is approximately 60 miles long.

3. Purposes to be served by the corridor.

Prime reasons:

The prime reason is to provide for a combination lake and river navigation route. Present uses are commercial fishing, boat traffic and barge traffic.

Secondary reasons:

None identified.

4. Mode(s).

Boat and barge are the two transportation modes, although over-surface air cushioned vehicle use is possible.

5. Expected time frame for use.

The corridor is currently in use and is expected to continue.

6. Corridor identified by:

The Bureau of Land Management identified the lake as a corridor.

Iliamna has long been recognized as being capable of commercial traffic. The Corps of Engineers, the Bureau of Land Management, and the State of Alaska consider it navigable.

7. Basis for location.

Natural physiography is the basis for location.

8. Opposition expected to corridor.

None is known.

9. Environmental Impacts.

Iliamna is one of the world's finest red salmon fisheries. It is also very well-known for sports fisheries. A heavy increase in commercial barging could result in water pollution if toxic substances were transported and spilled.

10. Social Impacts.

Considering the mode and present use, future social impacts should be minimal.

11. Land Status.

The corridor will cross lands having the following status:

a) Proposed d-2 lands.

Iliamna National Resource Range

b) Lands withdrawn for Native selection

Levelock	Pedro Bay
Igiugig	Iliamna
Kokhanok	Newhalen
Nondalton	

c) Native deficiency lands.

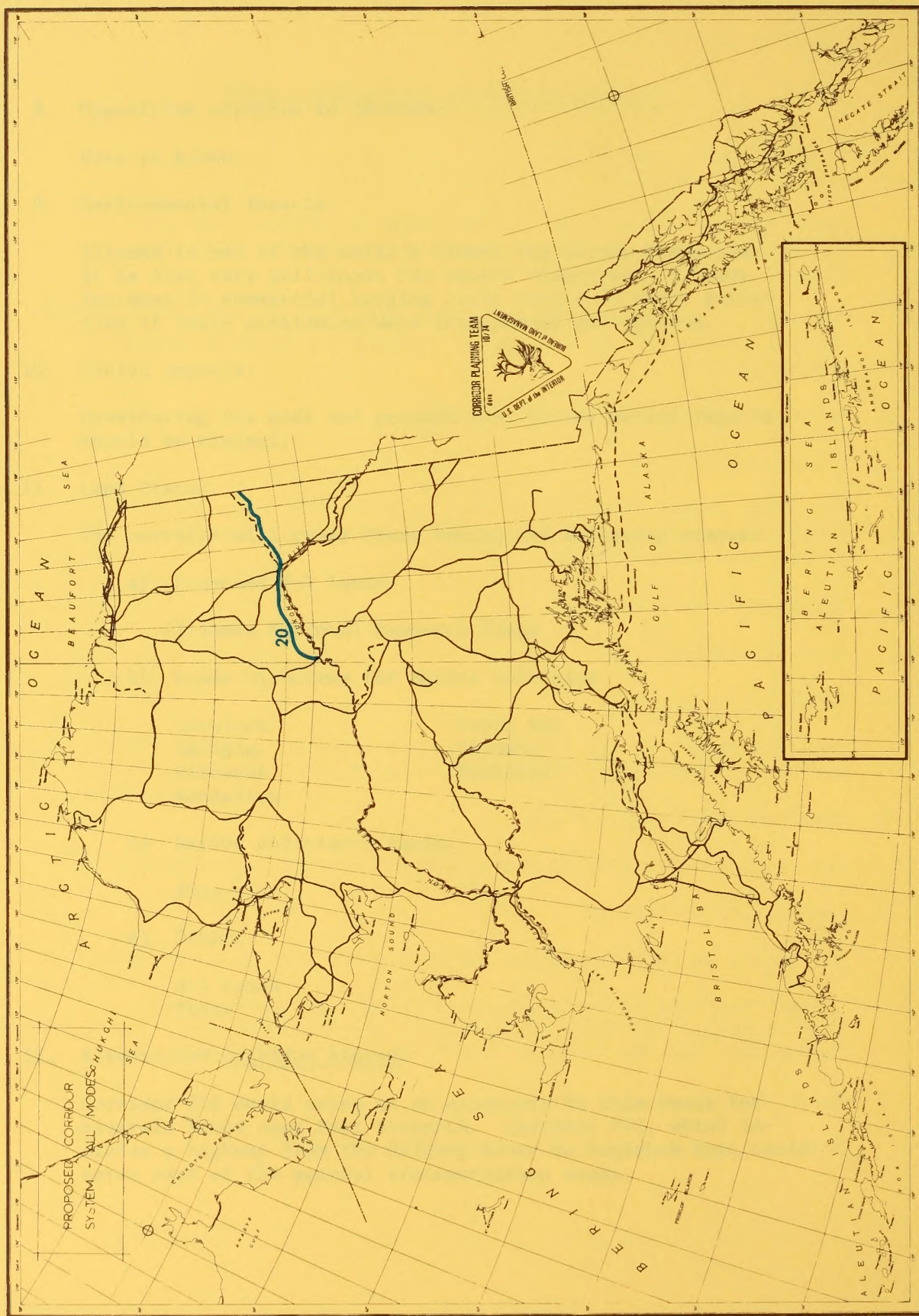
None

d) Other.

d-1 lands
State

12. Alternative corridor routes.

Corridor #16 could serve as an alternate to this route for minerals found near Port Alsworth. Corridor #11, which includes a highway from the Kvichak River to Kamishak Bay, could serve part of the general transportation needs.



CORRIDOR #20: PORCUPINE—FLATS

1. Length (miles) approx. 160
2. Route Description:

This route extends from corridor #26 at the Yukon River, crossing easterly to Canada. It proceeds along the north side of the Yukon Flats on the higher ground to Fort Yukon, crosses the Porcupine River and continues up the south side of Porcupine River to Canada.

3. Purposes to be served by the corridor.

Prime reasons:

If oil and gas reserves are discovered and developed in the Kandik Basin, this corridor would provide a direct link to corridor #26 for shipment to other points. It could also serve to transport gas from the MacKenzie Delta in Canada to the United States.

Secondary Reasons:

The road associated with the pipeline could also provide opportunity for transport of future agricultural and forest products as well as provide ground transportation for the people of Fort Yukon if they desire to have a connecting road link to the existing transportation system. The route would also serve outdoor recreation purposes such as hunting, fishing and sightseeing. It provides potential access to the Chandalar Mines.

4. Mode(s).

The corridor would provide an oil pipeline, a gas pipeline and an associated highway.

5. Expected time frame for use.

The corridor would be needed by the 1990's depending upon the results of exploration of the Kandik Basin and Yukon Flats.

6. Corridor identified by:

The Bureau of Land Management identified this route.

7. Basis for location

Selection was from topographic maps, resource overlays and aerial reconnaissance.

8. Opposition expected to corridor.

Local groups, conservation groups, Native Corporations and the U.S. Fish and Wildlife Service might oppose the corridor.

9. Environmental Impacts.

There could be impacts on waterfowl nesting, fisheries movements, water pollution, noise pollution, impacts on wildlife populations due to land access, aesthetic setting disturbance, permafrost, peregrine falcon nesting, and the high natural area values.

10. Social Impacts.

The construction phase would create a large influx of workers with attendant camps; the long-range aspects could have adverse impact on the subsistence resources. It would impact the life styles of the local people. Fairbanks and Fort Yukon would also be impacted since they would be the likely supply points for the construction phase.

11. Land Status.

The corridor will cross lands having the following status:

a) Proposed d-2 lands.

Yukon Flats National Wildlife Refuge
Porcupine National Forest

b) Lands withdrawn for Native selection.

Stevens Village
Beaver
Chalkyitsik
Fort Yukon
Birch Creek

c) Native deficiency lands.

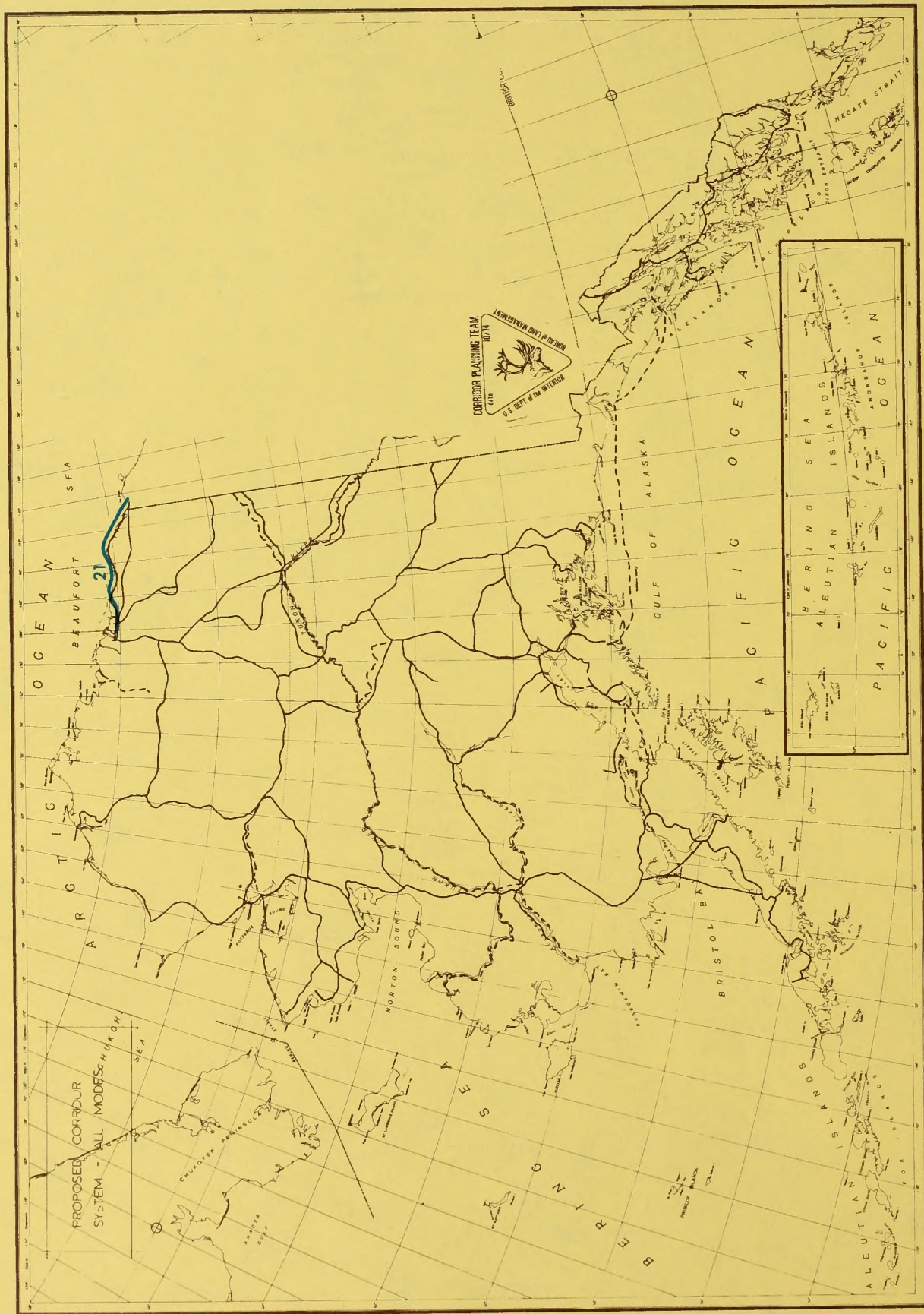
Doyon Native Regional Corporation

d) Other.

Rampart Power Withdrawal

12. Alternative corridor routes.

The southern segment of corridor #25 could serve for the transportation of oil and gas from the Kandik Basin. Corridors #8 and #28 provide an alternative means to move people, forest products and some minerals.



CORRIDOR #21: BEAUFORT SEA, OFFSHORE

1. Length (miles) approx. 200

2. Route Description:

Beginning at Prudhoe Bay, the route extends in a northeasterly direction, intersects the coast south of Flaxman Island, continues in the same direction of the 30 ft. depth contour line and follows this line to the Alaska-Canada border. The western portion in the vicinity of Camden Bay is shallow; therefore, the route is 4 to 5 miles offshore; the remainder is 1 to 2 miles offshore, often just beyond the barrier islands.

3. Purposes to be served by the corridor.

Prime reasons:

Movement of natural gas from the Prudhoe Bay field eastward to Canada and thence to other places is the prime reason, with potential of tapping reserves in the Beaufort Sea oil and gas province offshore.

Secondary reasons:

The secondary reason is to reach the additional gas and/or oil reserves in the MacKenzie Delta, Canada.

4. Mode(s).

Oil pipeline and gas pipeline are principal modes, along with highway for that portion of the corridor on shore.

5. Expected time frame for use.

If this route is selected, construction could begin within the next 10 years.

6. Corridor identified by:

Alaskan Artic Gas Pipeline Company identifies this as a gas alternative route.

7. Basis for location.

Preliminary work performed by Alaskan Arctic Gas, Inc., determined the location of this corridor.

8. Opposition expected to corridor.

Conservation groups, Native corporations, State of Alaska and U.S. Fish and Wildlife Service may make objections.

9. Environmental Impacts.

Impact would be greatest on the marine environment, but the sections between Prudhoe and the point where the line goes offshore can impact migratory waterfowl, permafrost and surface appearance. There is also potential for disturbance of known key habitat for polar bear denning along the Beaufort Sea coast. There would be potential noise pollution from pumping stations, temporary construction camps, and other facilities in an area where none now exist. Environmental impacts would affect portions of the Arctic National Wildlife Range.

10. Social Impacts.

The immediate social impacts of this corridor proposal would most likely be in the Prudhoe Bay area, the village of Kaktovik, and neighboring Canada. Secondary effects would result during the construction phase by new employment to some Alaskan residents. Employment of some of the workers might be possible after construction.

11. Land Status.

The corridor will cross lands having the following status:

a) Proposed d-2 lands.

None

b) Lands withdrawn for Native selection.

None

c) Native deficiency lands.

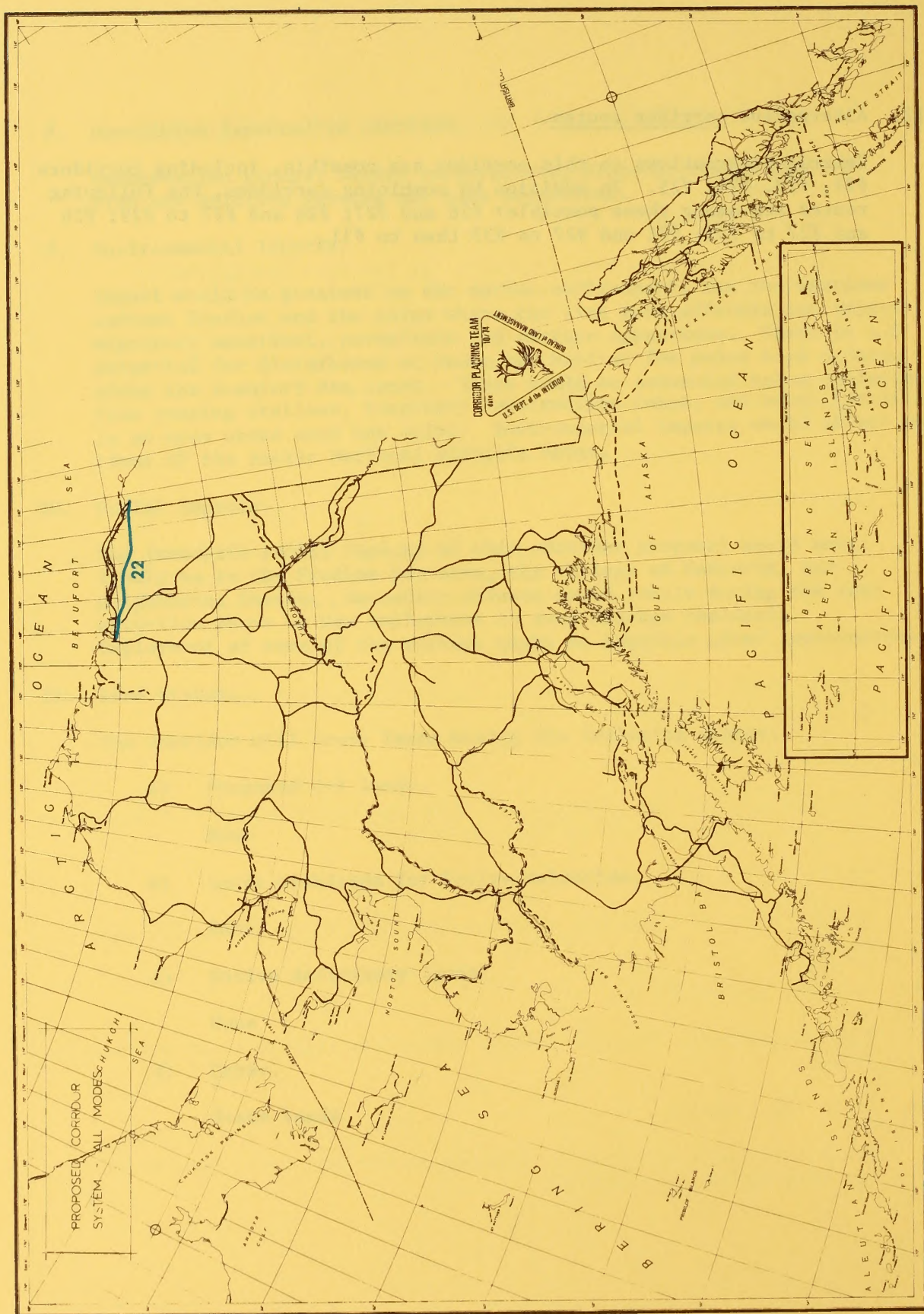
None

d) Other.

State lands

12. Alternative corridor routes.

Several alternatives to this corridor are possible, including corridors #22, #23, #24, #25. In addition by combining corridors, the following routes are among those possible: #26 and #27; #26 and #27 to #29; #26 and #27 to #33; #26 and #27 to #33 then to #31.



CORRIDOR #22: ARCTIC GAME RANGE, FOOTHILLS

1. Length (miles) approx. 200
2. Route Description:

The prime route begins at Prudhoe Bay and extends easterly and slightly south across the lake and pond-dotted Arctic Plain, and intersects the Canning River just above its braided portion of the lower delta. From there the route trends easterly crossing the Katakturuk, Sadlerochit, Hulahula, Jago, Aichillik, Egakrak, Kongakut Rivers and other rivers at varying distances upstream from the coast. The route is 200 to 300 feet above sea level.

3. Purposes to be served by the corridor.

Prime reasons:

The prime reason is to move oil and natural gas from Prudhoe Bay through Canada to United States and Canadian markets. It would also provide a way to tap the Beaufort Sea Oil and Gas Province.

Secondary reasons:

Recreation opportunities such as hunting and sightseeing and need to reach oil and gas reserves in Canada's MacKenzie Delta are secondary reasons for the corridor.

4. Mode(s).

Modes include natural gas, oil pipeline, and highway for the entire corridor length.

5. Expected time frame for use.

If this route is selected construction is expected within 10 years.

6. Corridor identified by:

Alaskan Arctic Gas Pipeline Company identified this corridor for a natural gas line.

7. Basis for location.

A centerline survey by Alaskan Arctic Gas Pipeline Company located this corridor.

8. Opposition expected to corridor.

Objections are expected from conservation groups, State of Alaska, Alaska Native corporations, and the U. S. Fish and Wildlife Service.

9. Environmental Impacts.

Caribou migration routes, routes to known polar bear denning areas, waterfowl nesting and rearing areas would be impacted. Noise pollution from pump stations, and potential degradation of permafrost and its vegetative cover are possible. Many of these impacts would occur in the Arctic National Wildlife Range.

10. Social Impacts.

Minimum impacts are expected because of the distance from village locations.

11. Land Status.

The corridor will cross lands having the following status:

a) Proposed d-2 lands.

None

b) Lands withdrawn for Native selection.

None

c) Native deficiency lands.

None

d) Other.

State lands

Arctic National Wildlife Range

12. Alternative corridor routes.

There are several alternatives to this corridor, including #21, #23, #24, #25. By combining corridors the alternatives can be expanded; such possibilities include: #26 and #27; #26 and #27 to #29; #26 and #27 to #33; #26 and #27 to #33 then to #31.

STUDY OF THE EFFECTS OF GAME LAWS, THORNTON





CORRIDOR #23: ARCTIC GAME RANGE, SHORELAND

1. Length (miles) approx. 200

2. Route Description:

Starting at Prudhoe Bay the route extends eastward toward Flaxman Island to the coast and then stays adjacent to the coast all the way to the Canadian boundary. It crosses all of the deltas of the major rivers along the way but does not interfere with the barrier islands.

3. Purposes to be served by the corridor.

Prime reasons:

Transportation of both oil and gas from Prudhoe Bay east to Canada or else from Canada or the northeast Arctic Coast to Prudhoe Bay is the prime reason for the corridor. This could also serve oil and gas development offshore along the Arctic Coast in the Beaufort Sea Oil and Gas Province.

Secondary reasons:

The associated road could serve wildlife management purposes and allow people access to the highly scenic wilderness of the Arctic National Wildlife Range. Overland transport of supplies and goods to the village of Kaktovik on Barter Island would be facilitated.

4. Mode(s)

Oil and gas pipelines and associated roads are considered for this corridor. It would transport oil and gas from the potential Beaufort Sea Province to corridor #26 or possibly could go into Canada with these same products.

5. Expected time frame for use.

If this route is selected to serve as the primary transmission corridor for moving Prudhoe Bay gas to Canada, it is likely that it would be in operation within 10 years. If not, a 20 to 25 year time frame is expected.

6. Corridor identified by:

The Bureau of Land Management and Alaska Pipeline Office suggested this route as a possible way to move oil and gas from both onshore and offshore development.

7. Basis for location.

The location is based primarily on topography and a way to avoid conflict with caribou migration along the northeast Arctic Coast.

8. Opposition expected to this corridor.

Conservation groups, Native Corporations, the State of Alaska and the U.S. Fish & Wildlife Service may object to this corridor.

9. Environmental Impacts.

This corridor location would have impacts on migratory waterfowl nesting habitat and also the resting area used by large flights of snow geese and other birds during migration. The utilization of the corridor could have impacts on the delicate balance of the beach dunes. It will also be necessary to utilize large quantities of sand and gravel which may be taken from the river beds or other places which could impact scenic and fisheries resources. Noise from the pumping station and the possibility of water pollution from oil spills are also likely. Polar bear denning could be impacted. The coastal permafrost is very sensitive and highly erosive. It would also impact caribou migration routes in the Arctic National Wildlife Range.

10. Social Impacts.

Pipeline and road construction would require the use of large amounts of labor and materials and the erection of temporary construction camps. The village of Kaktovik on Barter Island could receive heavy impact.

11. Land Status.

The Corridor will cross lands having the following status:

a. Proposed d-2 lands.

None

b. Lands withdrawn for Native selection.

Kaktovik

c. Native deficiency lands.

None

d. Other.

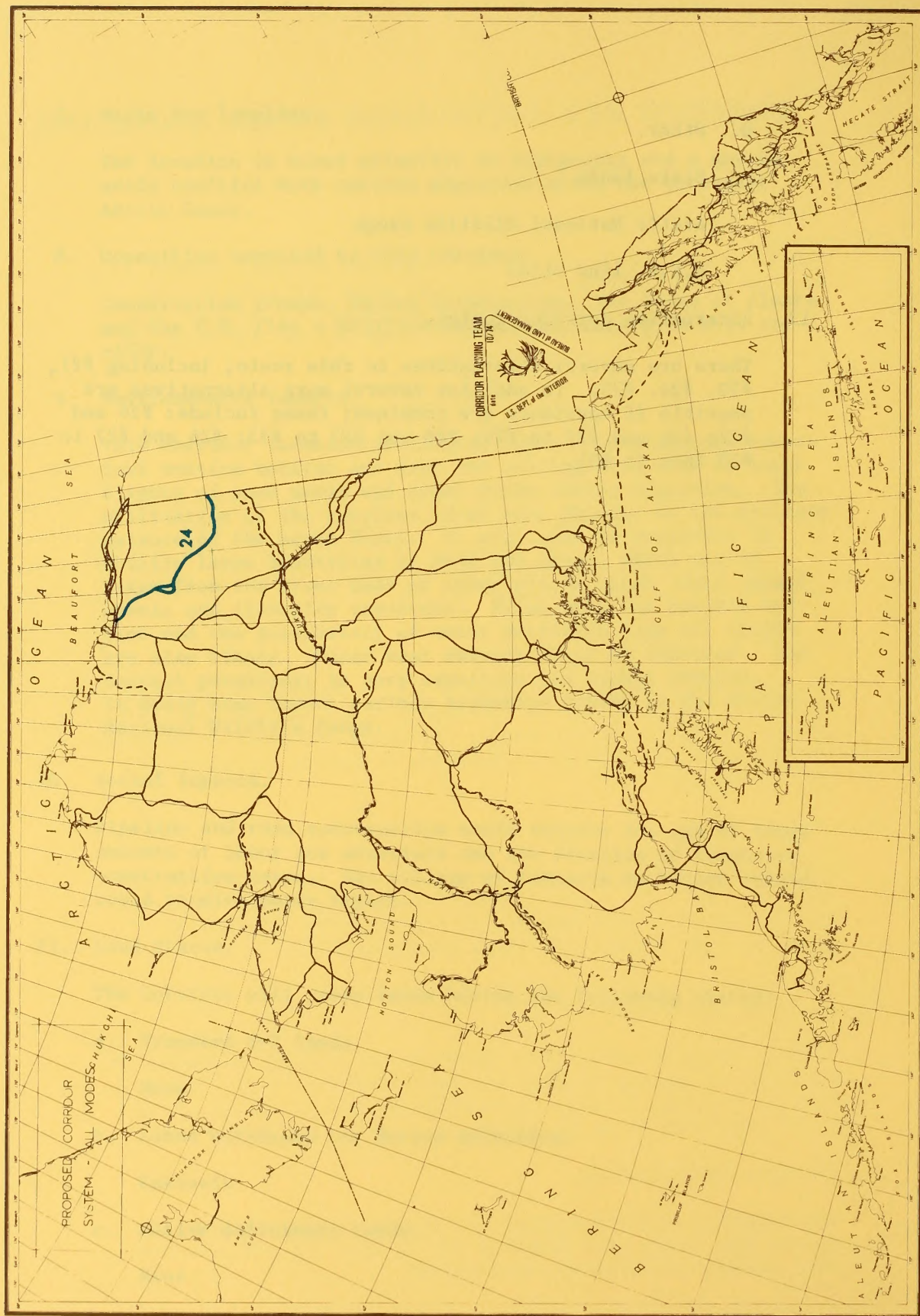
State lands

Arctic National Wildlife Range

D.E.W. line sites

12. Alternative corridor routes.

There are several alternatives to this route; including #21, #22, #24, #25. In addition several more alternatives are possible if corridors are combined; these include: #26 and #27; #26 and #27 to #29; #26 and #27 to #33; #26 and #27 to #33 then to #31.



CORRIDOR #24: ARCTIC GAME RANGE—BOUNDARY

1. Length (miles) approx. 300
2. Route Description:

The Interior route extends from Prudhoe Bay in a southeasterly direction to the Canning River and then along the Canning River to the junction with the Marsh Fork. One alternate follows the Marsh Fork to the head of Cane Creek while the other continues along the Canning River to the same point. The route then descends Cane Creek to the East Fork of the Chandalar, crosses at this point and ascends the south side of Old Woman Creek. It follows along Monument Creek across the Sheenjek, going easterly just south of Grayling Lake and across the Coleen River, thence along Strangle Woman Creek to the Alaska-Canada border near Potato Creek.

3. Purposes to be served by the corridor.

Prime reasons:

The prime reasons for the corridor are to move oil and natural gas supplies from Prudhoe Bay east to Canada thence to markets in the United States and Canada.

Secondary reasons:

It provides access for wildlife observations, fishing, and hunting, and allows better access for wildlife management purposes.

4. Mode(s).

A highway, an oil pipeline and a natural gas pipeline are present for the entire length of the corridor.

5. Expected time frame for use.

If this route is selected from the alternatives, it could be implemented in early 1980's.

6. Corridor identified by:

The existing corridor was withdrawn by the Secretary of the Interior in December, 1971.

7. Basis for location.

Existing corridor withdrawal was located to provide for a pipeline and other facilities. It varies in width from 6 to 18 miles.

8. Opposition expected to corridor.

This corridor is opposed by many conservation groups and the State of Alaska.

9. Environmental Impacts.

The corridor adjoins the existing Arctic National Wildlife Range and also impacts proposed additions to the Range. It could affect caribou movements, sheep habitats and possible siltation of streams such as the Canning River, East Fork of Chandalar, Coleen and Sheenjek. Oil spills would cause water pollution. The alternate route along the Marsh Fork would impact an excellent Dall sheep area. Noise from construction could affect waterfowl nesting and rest areas. The route crosses an area with high scenic and primitive values. Permafrost is present throughout the route.

10. Social Impacts.

Arctic Village and Venetie would be impacted by increased contact with outsiders, increased mobility, and increased employment opportunities.

As the corridor borders the Range and transects proposed additions, the construction of a facility would significantly alter the primitive area values as well as the area's wildlife values.

11. Land Status.

The corridor will cross lands having the following status:

a) Proposed d-2 lands.

None

b) Lands withdrawn for Native selection.

None

c) Native deficiency lands.

None.

d) Other.

The route is contained in a currently withdrawn corridor for transportation and utility purposes.

12. Alternative corridor routes.

There are several alternatives to the proposed route; including #21, #22, #23, and #25. There are several alternative routes possible if corridors are combined; these include: #26 and #27; #26 and #27 to #29; #26 and #27 to #33; #26 and #27 to #33 then to #31.

CORRIDOR #25: PRUDHOE—FORT YUKON

1. Length (miles) approx. 400
2. Route Description:

This corridor begins at a junction with corridor #26 at Oksrukuyik, then swings southeast to the headwaters of the Wind River and follows this stream to its confluence with the East Fork of the Chandalar River and continues in this direction just south of Christian to a point just north of Fort Yukon. It then crosses the Porcupine River and extends along the north side of the Yukon River to Canada to join the Canadian line near Dawson.

3. Purposes to be served by the corridor.

Prime reasons:

The major purpose of this corridor is to move oil and natural gas from Prudhoe Bay to link with a Canadian line near Dawson, Yukon Territory. It could also serve the potential Kandik Basin.

Secondary reasons:

This corridor could serve the potential agricultural and timber lands in the Fort Yukon area. The associated highway could also serve as a transfer point for waterborne cargo on the Porcupine and Yukon Rivers and other points along the upper Yukon River.

4. Mode(s).

The corridor contains a natural gas pipeline, an oil pipeline and a highway along its entire route.

5. Expected time frame for use.

If this corridor is selected, the movement of gas to Canada is expected within 10 years.

6. Corridor identified by:

This corridor is one of five alternative routes included in the applications of Alaskan Arctic Gas Pipeline Company.

7. Basis for location.

The environmental report by Alaskan Arctic Gas Pipeline Company does not include much information regarding this route except that it provides a fairly direct link between Prudhoe Bay and Dawson via the Kandik Basin. The company suggests there is sufficient potential for oil and gas deposits in the Yukon Flats - Kandik Basins to warrant a pipeline route independent of the Prudhoe Bay Field.

8. Opposition expected to corridor.

This corridor, with its route along the Wind River and Native corporation lands, will undoubtedly be opposed by those directly affected. The Wind River is in the Secretary of the Interior's proposal for National Wild & Scenic Rivers and conservation groups are likely to voice opposition. The Natives will have concerns regarding impacts on their lifestyles and subsistence resources.

9. Environmental Impacts.

The Wind River valley has high potential for its features and primitive values, which would be altered. Caribou migration routes would be impacted. There could be water pollution due to construction and operational activities. Waterfowl feeding and nesting habitats would be adversely affected if water quality deteriorated. Noise and water pollution could result from construction activities and from operation of the pumping and compression stations. The northern portion of this route is in a continuous permafrost zone; the southern portion is in a zone of discontinuous permafrost.

10. Social Impacts.

Creation of employment opportunities for Alaska Natives would speed up the change from a subsistence to a cash economy. The availability of goods and services could be speeded up. Another source of heat and cooking energy would be available if natural gas is developed.

11. Land Status.

The corridor will cross lands having the following status:

a) Proposed d-2 lands.

Porcupine National Forest
Yukon-Charley National Rivers
Wind Wild River
Arctic National Wildlife Range Additions

b) Lands withdrawn for Native selection.

Fort Yukon
Circle
Eagle Village
Birch Creek

c) Native deficiency lands.

Doyon Native Regional Corporation

d) Other.

Former Venetie Reserve
d-1 lands

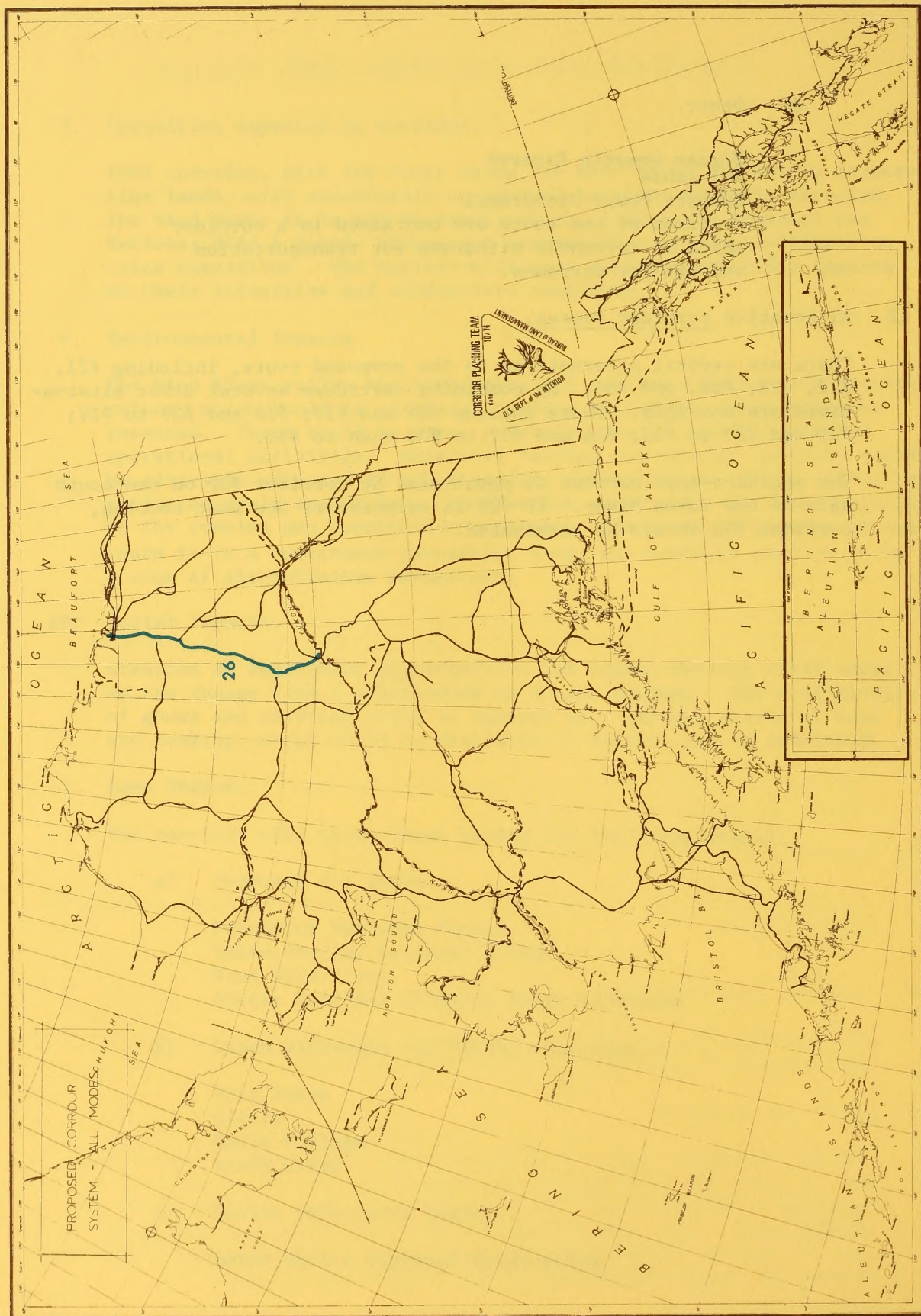
Rampart Power Withdrawal

Portions of the route are contained in a corridor
which is currently withdrawn for transportation
and utility purposes.

12. Alternative corridor routes.

There are several alternatives to the proposed route, including #21, #22, #23, #24, and #36. By combining corridors several other alternatives are possible. These include #26 and #27; #26 and #27 to #29; #26 and #27 to #33; #26 and #27 to #33 then to #31.

The southern-most portion is paralleled by corridor #32 on the south side of the Yukon River. If #25 is selected as the best routing, corridor #32 should be terminated.



CORRIDOR #26: PRUDHOE—YUKON RIVER

1. Length (miles) approx. 320
2. Route Description

This corridor, containing the Trans-Alaska Pipeline, extends from Prudhoe to the Yukon River bridge.

3. Purposes to be served by the corridor:

Prime reasons:

Oil and gas will be transported from the Prudhoe Bay fields to a deepwater port for export or through Canada to the United States.

Secondary reasons:

It will provide highway access to the North Slope, and provides an opportunity to ship mineral resources from the Brooks Range. It provides recreation access. The highway also provides access to river traffic on the Yukon River for potential shipment of future agricultural products and timber resources.

4. Mode(s).

Oil and gas pipelines and highway are the prime modes in the corridor, with a rail spur into corridor #4.

5. Expected time frame for use.

The corridor is presently withdrawn for transportation and utilities uses and will have the Trans-Alaska Oil Pipeline built within it by 1977. If this route is selected for natural gas, pipeline construction is likely to occur within 10 years.

6. Corridor identified by:

The Secretary of the Interior withdrew the corridor in December, 1971.

7. Basis for location.

The location of the existing corridor was based on preliminary engineering for the Trans-Alaska Pipeline. Applications are pending to use all of the route for construction of a natural gas pipeline. Portions of the corridor have been considered in alternative routings for a natural gas pipeline.

8. Opposition expected to corridor.

None is known.

9. Environmental Impacts.

Environmental impacts of construction of gas or additional oil pipelines will be similar to those experienced during the Alyeska project. There would be soil and permafrost disturbance, water pollution and hydrological flow changes and visual impacts during construction and operation of the facilities. There are potential waterfowl, caribou, and fisheries impacts resulting from the increase in people and noise in an area.

10. Social Impacts.

The influx of construction crews causes social impacts in the communities along the route, such as overloading of social facilities, increased contacts between Alaska Natives and outsiders, and disruption of Alaska Natives' traditional seasonal work patterns. Increased employment opportunities, increased flow of goods and services likely will occur.

11. Land Status.

The corridor will cross lands having the following status.

a) Proposed d-2 lands.

None

b) Lands withdrawn for Native Selection.

Bettles Field
Wiseman

c) Native deficiency lands.

None

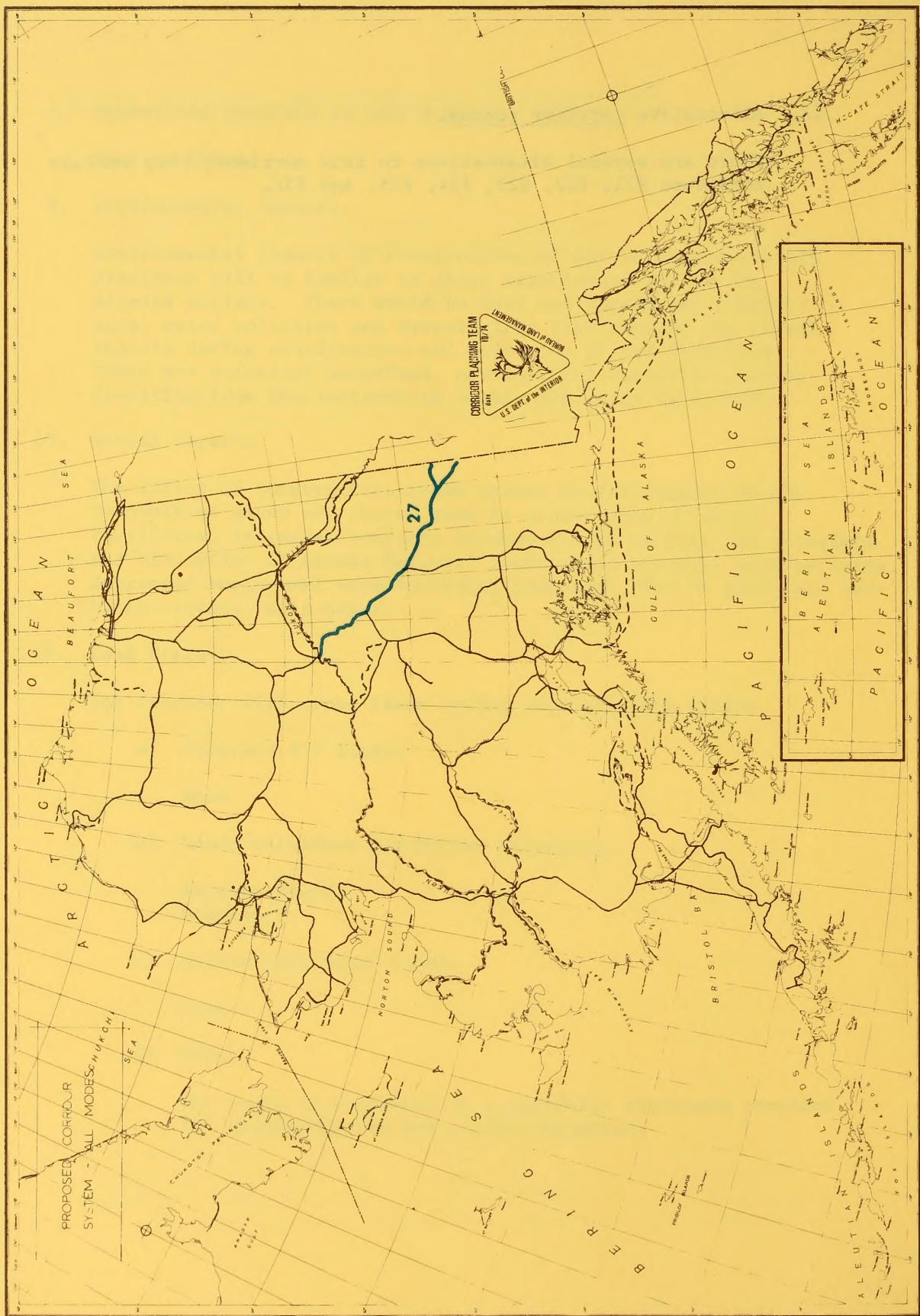
d) Other.

The route is contained in a currently withdrawn corridor for transportation and utility purposes.

12. Alternative corridor routes.

There are several alternatives to this corridor; they include corridors #21, #22, #23, #24, #25, and #36.





CORRIDOR #27: RAMPART-CANADA

1. Length (miles) approx. 375
2. Route Description:

North to South

The corridor begins on the south bank of the Yukon River. From the Yukon River bridge, it parallels the existing highway to Delta Junction, passing near Livengood and Fairbanks. From Delta Junction, it parallels the Alaska Highway to Canada. A spur corridor for the railroad leaves the main corridor near Canada.

3. Purposes to be served by the corridor.

Prime reasons:

A segment of this corridor from the Yukon River to Delta Junction is coincident with the Trans-Alaska pipeline route. This corridor provides for movement of oil from the North Slope. This route is an alternate proposed by Alaskan Arctic Gas for a natural gas pipeline. The route segment from Yukon River to Delta Junction is also El Paso's proposed natural gas pipeline route.

Secondary reasons:

The existing highway serves general transportation needs.

4. Mode(s).

A natural gas pipeline and an oil pipeline are included for the entire corridor. An existing 8-inch military oil pipeline parallels the Alaska Highway from Fairbanks to the Canadian border.

Power transmission facilities from Fairbanks to Delta Junction are part of the Anchorage-Fairbanks-Glennallen power loop. From Delta Junction, power transmission continues to the Canadian Border; inside Canada, it may connect with the Yukon-Taiya Power Project in Southeast Alaska.

A rail segment runs from Fairbanks to Northway; in the Northway area, a rail spur route down the Ladue River connects with the Canadian railroad proposed to end at Dawson.

5. Expected time frame for use.

Oil and natural gas development is expected within 10 years; railroad, within 15 years; and power transmission, by 1990.

6. Corridor identified by:

The natural gas pipeline route was identified by Alaskan Arctic Gas Pipeline Company and by El Paso Natural Gas Pipeline Company. The oil pipeline mode was identified by the Bureau of Land Management, the power mode by the Alaska Power Administration, and the railroad by the Alaska Railroad Administration.

7. Basis for location.

The Alaska Power Administration has had on-the-ground location crews working; the Alaskan Arctic Gas Pipeline Company and El Paso Natural Gas Company have similar, preliminary, on-the-ground investigations for portions along the route.

8. Opposition expected to corridor.

None is known.

9. Environmental Impacts.

This corridor is in an area relatively free of permafrost, but local problems will occur. It parallels the Tanana River for a major portion of the route. The Tanana and many of its tributaries are glacial streams; but some additional water pollution is probable. Oil pipeline construction could have significant water pollution implications. The Tanana River Valley is a waterfowl production area with medium populations; it is also a waterfowl migration route. There may also be peregrine falcon present. The Tanana is not a major producer of sports or anadromous fish.

The route borders two caribou herds, the Delta and the Mentasta, but does not cross major migration routes or calving areas.

Since a surface transportation corridor presently exists, any initial major adverse or beneficial impacts have already occurred. Construction of a pipeline in this corridor should impact the environment to a lesser degree.

10. Social Impacts.

Social impacts from oil and gas development would be similar to those presently being experienced by communities along the Trans-Alaska Pipeline route, but of a smaller magnitude.

Availability of electrical power would be more dependable by completion of the "loop" concept which provides a two-way power flow between Anchorage and Fairbanks.

The railroad from Canada would probably mean an increased flow of goods; local impacts will probably be limited for all modes, as this entire area is readily accessible and impacted by comparable modes now.

11. Land Status.

The corridor will cross lands having the following status:

a) Proposed d-2 lands.

None

b) Lands withdrawn for Native selection.

Healy Lake
Tanacross
Northway
Dot Lake

c) Native deficiency lands:

None

d) Other:

Former Tetlin Reserve
State lands
Portions of the route are contained in a corridor
which is currently withdrawn for transportation
and utility purposes.

12. Alternative corridor routes.

For oil and gas, from Fairbanks southward, an alternate route to Cook Inlet is #29; another alternate route to Valdez is #33.

A more southern rail connection from Tanana to the Alaska Highway has been identified by the Alaska Railroad Administration. That route bypasses Fairbanks and would require construction of a new route across a military reserve.

CORRIDOR #28: PORCUPINE RIVER

1. Length (miles) approx. 210
2. Route Description:

This corridor extends the full length of the Porcupine River from the Canadian border to the Yukon River near Fort Yukon. The corridor would include the river channel between mean high water levels.

3. Purposes to be served by the corridor.

Prime reasons:

The corridor serves movement of people, forest products, agricultural products and general cargo to various points along the river.

Secondary reasons:

The corridor would also serve pleasure boats of all sizes and types as well as allow small private cargo craft to move up and downstream. It will also maintain our international treaty agreement with Canada relating to future uses on the river. The corridor would serve outdoor recreation purposes such as hunting, fishing and sightseeing.

4. Mode(s)

The river surface would accommodate all types of small watercraft during the open water season; snow machines and other over-the-snow equipment after freezing; and movement of air cushion vehicles during all seasons of the year.

5. Expected time frame for use.

The river is currently being used and will have an immediate future need.

6. Corridor identified by:

The corridor was identified by the International Treaty between the United States and Great Britian.

7. Basis for location.

Location of the river and its channels is the location of the corridor.

8. Opposition expected to corridor.

None known.

9. Environmental Impacts.

Construction of additional docks, landing sites, and other shoreside facilities could accelerate erosion of riverbanks and degradation of permafrost adjacent to the river. Waterfowl, fisheries and water quality could be adversely affected. Waves created by watercraft could accelerate bank erosion in places. The installation of navigational aids could impact the visual aspect to some degree. Peregrine falcon nesting disturbance would be likely. Oil spillage would cause water pollution. Timber harvest in the area would speed up erosion and increase sedimentation without proper preventative measures. Water pollution from watercraft would be minimal but probable.

10. Social Impacts.

Increased use of the river will impact subsistence resources of the locale as well as provide some additional jobs for local residents. The construction, operation and maintenance activities of shoreside facilities would provide employment opportunities for the local people.

11. Land Status.

a) Proposed d-2 lands.

Porcupine National Forest
Porcupine National Scenic River

b) Lands withdrawn for Native selection.

Fort Yukon Chalkyitsik

c) Native deficiency lands.

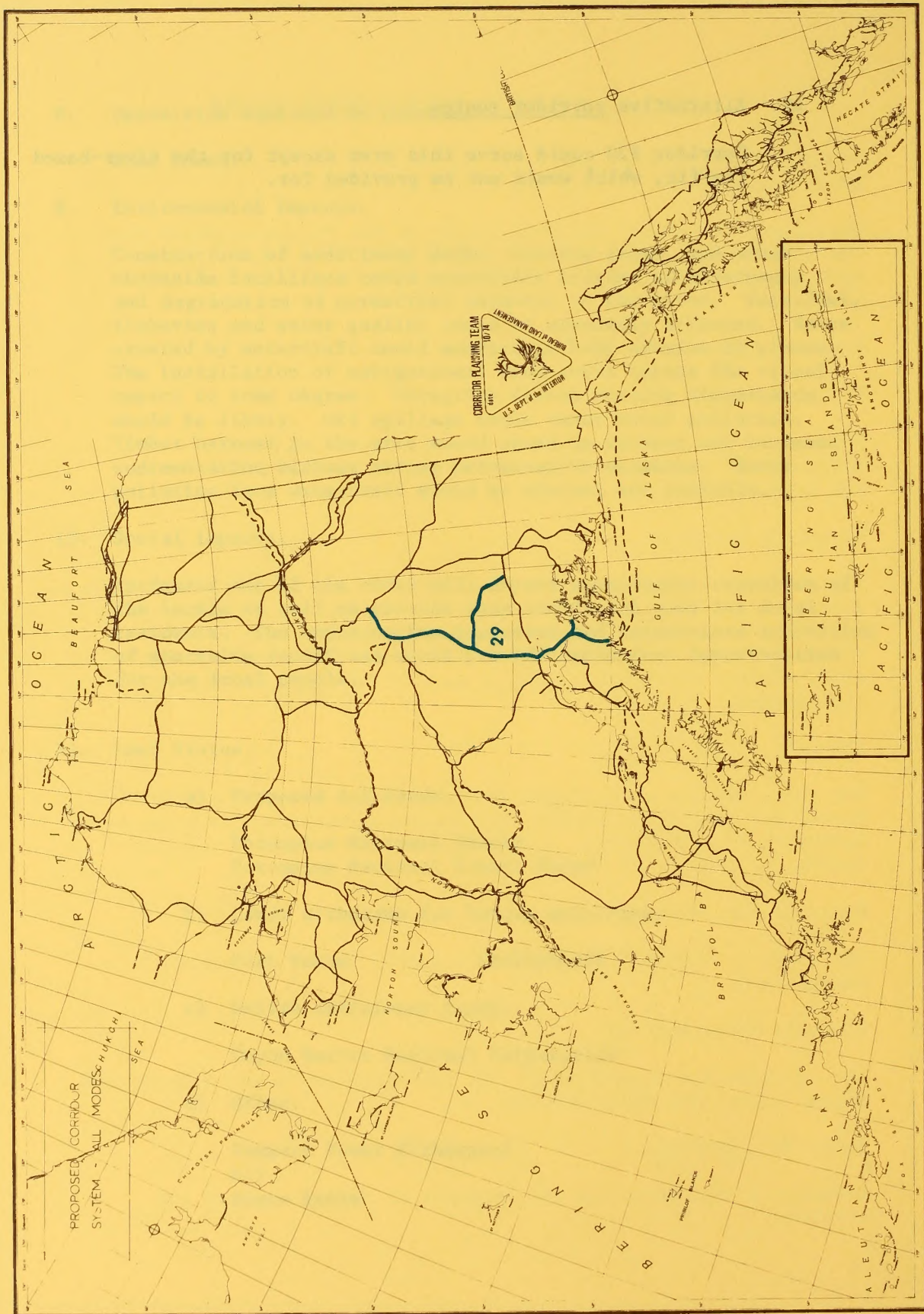
Doyon Native Regional Corporation

d) Other.

Rampart Power Withdrawal
D-1
State lands

12. Alternative corridor routes.

Corridor #20 could serve this area except for the river-based traffic, which would not be provided for.



CORRIDOR #29: RAILBELT AND POWER GRID

1. Length (miles) approx. 600
2. Route Description:

The corridor begins in Fairbanks and parallels the existing Alaska Railroad to Willow; thus linking corridors #13, #15, #30, #38. The corridor then continues south crossing the Knik Arm, thence east of Anchorage along Turnagain Arm. It intersects corridor #12, and continues through the mountainous part of Kenai Peninsula to Seward.

A spur route follows the upper Susitna River eastward through the Talkeetna Mountains to a connection point on the Glenn Highway near Eureka. A second spur ties into Whittier from Portage.

3. Purposes to be served by the corridor.

Prime reasons:

Power transmission from the Susitna Project to Fairbanks and the Anchorage area is the prime reason for the corridor. This power corridor forms the western side of a "loop" system that goes from Anchorage to Fairbanks to Glennallen and back to the Anchorage area. This corridor also provides an alternate route for north slope oil and gas to alternate ports of upper Cook Inlet, Seward or Whittier.

Secondary reasons:

A portion of the corridor is already an existing transportation corridor with highway and railroad facilities.

4. Mode(s).

The existing railroad and highway network extends from Fairbanks, through Anchorage and the Kenai Peninsula. The railroad spur alone continues into Whittier.

Most of the proposed power transmission grid follows existing railroad corridors to the junction with corridor #12.

Gas and oil pipelines would follow along existing railroad or highway routes.

5. Expected time frame for use.

The Susitna Project is planned for 1980's; power transmission would probably be toward Anchorage first, then Fairbanks.

Natural gas transportation is possible by 1980. Oil exploration is continuing on the North Slope and is planned in the Yukon Flats area within 10 years. The upper Cook Inlet and Seward ports will continue to be alternate shipping ports as long as northern oil and gas development continues.

6. Corridor identified by:

The Alaska Power Administration identified the power transmission corridor; the natural gas pipeline corridor is an El Paso Natural Gas Pipeline Company alternative route; the oil pipeline was identified by the Bureau of Land Management.

7. Basis for location.

The existing rail and road system is the basis for location.

8. Opposition expected to corridor.

Portions may be opposed by the National Park Service because of its close relationship to the main entrance to Mt. McKinley National Park.

9. Environmental Impacts.

If the Susitna Project is constructed, it will cause alteration of sediments carried by the lower Susitna River. Four reservoirs are planned; at these sites there would be considerable permafrost degradation. White-water boating would be replaced by reservoir boating. There would be a loss of some lowland riverside habitat. Alteration of stream flows would be a certainty. The scenic impact of power lines and reservoir impoundment structures would be significant in a very scenic area.

Pipelines suggest potential water pollution through oil spillage. Visual impact is limited from the ground, more significant from the air. Potential air pollution is likely if petrochemical industries are developed in the Anchorage area. Waterfowl and fisheries production in Susitna River would be impacted.

10. Social Impacts.

Additional power reserves could assist future growth of the areas served by the power loop, which includes the two largest population centers for the State and the new State Capital location area. Future oil and gas transportation to the Anchorage, Seward and Whittier areas invite development of a petrochemical industry. This would continue economic growth with social impacts commensurate with the developing metropolitan area.

11. Land Status.

The corridor crosses lands having the following status:

a) Proposed d-2 lands.

None

b) Lands withdrawn for Native selection.

Eklutna	Nenana
Cantwell	Knik
Caswell	Montana Creek

c) Native deficiency lands.

Cook Inlet Native Regional Corporation.

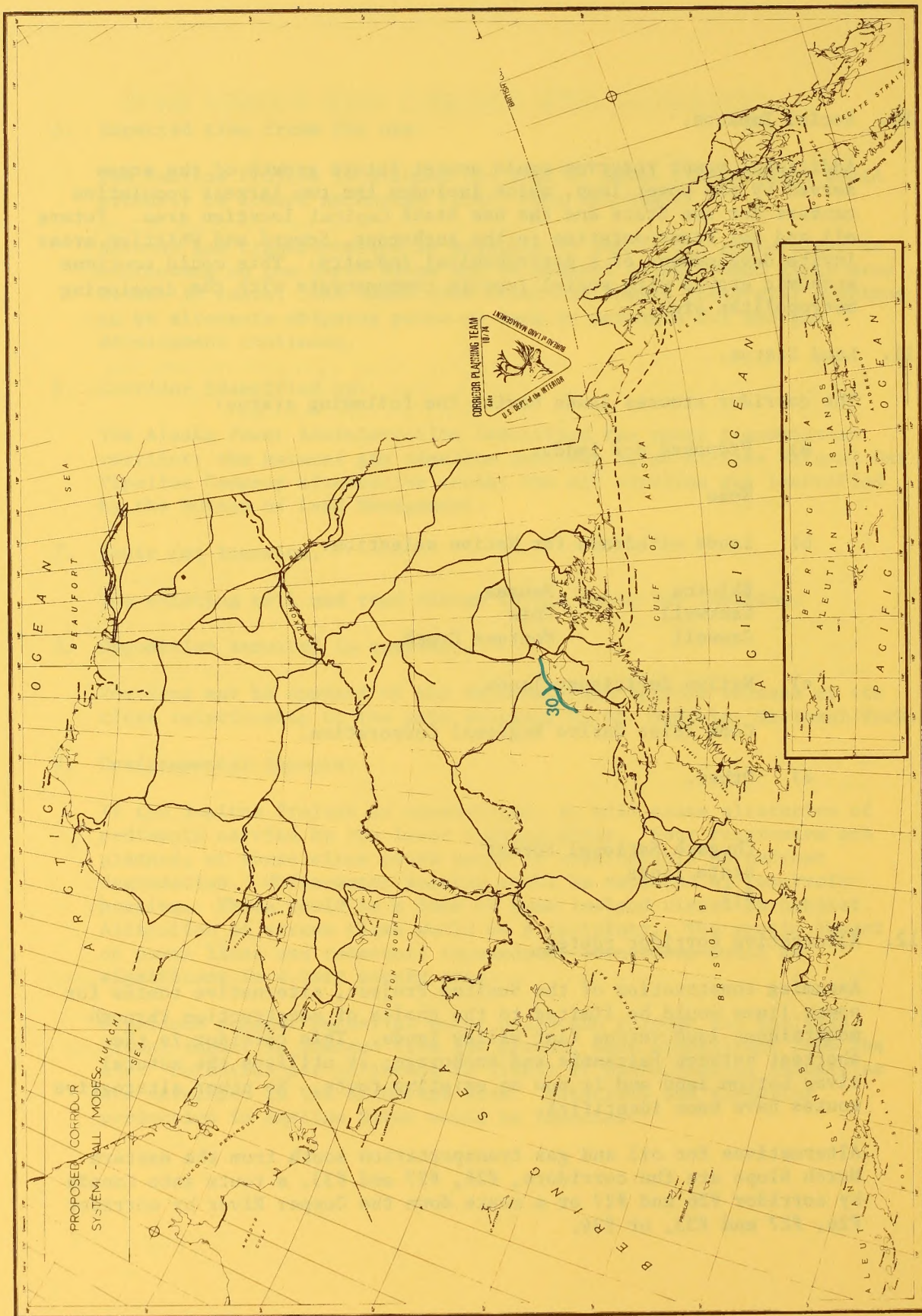
d) Other.

Chugach National Forest
State lands
d-1

12. Alternative corridor routes.

Assuming construction of the Susitna Project, alternative routes for power lines would be limited to the choice of construction through mountainous land versus flat valley lands. This corridor is the shortest between Fairbanks and Anchorage; it utilizes the natural river bottom land and is now an existing route. No other alternative routes have been identified.

Alternatives for oil and gas transportation south from the eastern North Slope are the corridors, #26, #27 and #33, a route into Canada by corridor #26 and #27 or a route down the Copper River by corridor #26, #27 and #33, or #34.



CORRIDOR #30: UPPER COOK INLET

1. Length (miles) approx. 175
2. Route Description:

Extending generally along a northeast-southwest alignment, this route begins on the Railbelt Corridor #29, 10 miles east of Susitna, thence westerly along the flats on the north side of Cook Inlet. The route crosses the Susitna River, turns southwest, crosses the Beluga River, the MacArthur River, the North Forelands (Kustatan) and ends just north of the Drift River Delta, at the existing oil shipping facilities. South of the Beluga River the corridor has a short spur connecting Tyonek.

An underwater gas and oil pipeline corridor extends from the Tyonek area across the Cook Inlet to the Nikiski dock area near Kenai, thence paralleling existing transportation routes to the Homer area.

3. Purposes to be served by the corridor.

Prime reasons:

The transportation of energy related resources including oil, gas, and coal to shipping points is the prime reason for this corridor.

Secondary reasons:

Access by road and railroad to the Tyonek area is provided.

4. Mode(s)

Gas and oil pipelines are present for the entire length of the corridor. A highway links the Drift River facilities to the existing highway system. A railroad and a coal slurry line goes northward from the Tyonek area to the Beluga coalfield, and the railroad then goes northeast from the Tyonek area to the existing railroad.

An underwater pipeline could spur off this corridor, crossing Cook Inlet to existing shipping facilities or processing plants in the Nikiski area (near Kenai) and the Homer area.

5. Expected time frame for use.

This is an existing oil pipeline route now. This proposed corridor utilizes the concept of the Drift River facilities being expanded for future oil and gas shipping. Oil and gas development within Cook Inlet is now expanding, and it has been proposed to bring oil and gas to the Cook Inlet within the next 10-20 years as an alternative to other shipping ports.

6. Corridor identified by:

The Alaska Department of Highways identified a highway route to the Drift River area and on past, on route to the Iliamna area. Drift River and Nikiski are existing shipping facilities and processing areas. The Homer area has been identified by El Paso as a potential shipping area. The Bureau of Land Management identified the coal slurry and railroad modes.

7. Basis for location.

Highway location is based on some on-the-ground work, local knowledge and experience in overall planning efforts by the Alaska Department of Highways. The Drift River area represents the best shipping potential for future port development on the north side of the Cook Inlet. Cook Inlet, north of the forelands, is generally too shallow, encumbered by drilling platforms and plagued by winter ice and mud problems, to have reasonable future port development potential for major oil tanker traffic. There is presently a water depth of 60-feet at the present existing dock facilities at Drift River.

The Nikiski port is an existing facility with 45 feet of water. The route south from Nikiski parallels the existing Sterling Highway.

Oil and gas pipeline corridor location and coal slurry pipeline locations were placed in the proposed railroad and highway locations where possible.

8. Opposition expected to corridor.

None is known.

9. Environmental Impacts.

This corridor crosses several river drainages and the Cook Inlet, all of which are glacial or muddy waters. Oil spillages could significantly affect water quality. The country crossed by this corridor is relatively flat and soil erosion should not be a significant problem. Wildlife impacts of a significant nature would be limited to waterfowl. The area just south of the Susitna River mouth is a key area for waterfowl production and is a popular hunting area. Potential oil spillage in this area could significantly impact waterfowl in the area. Potential oil spills in the corridor could have significant impacts on fisheries. The area on the north side of the Cook Inlet is known as a high quality sports fishing area and anadromous fishery. The tributary streams running into Cook Inlet are major salmon streams. Lower Cook Inlet is also a major commercial producer of clams, shrimp and crab.

10. Social Impacts.

The use of this corridor for increased oil and future gas shipment would have some social impact on the Anchorage area. Future petrochemical developments in the upper Cook Inlet area will impact social services in the Anchorage, Homer and Kenai areas. Expansion of the petrochemical industry on the Kenai Peninsula will have a relatively greater impact on the smaller communities there.

11. Land Status.

The corridor will cross lands having the following status:

a) Proposed d-2 lands.

None.

b) Lands withdrawn for Native selection.

Knik	Kasilof
Alexander	Ninilchik
Tyonek	Salamatof
Kenai	

c) Native deficiency lands.

None.

d) Other.

State lands.

12. Alternative corridor routes.

Corridor #29 is the primary alternative route for shipping out of the upper Cook Inlet area. The ports of Seward or Whittier have been identified for oil and gas shipments. Recent Corps of Engineers' studies indicate it would be better economically to utilize Seward as opposed to the shipping facilities presently at or which could be developed at Anchorage.

Coal shipping alternatives are Granite Point (near Tyonek), Seward or Whittier.



CORRIDOR #31: GLENN HIGHWAY

1. Length (miles) approx. 140
2. Route Description:

This route parallels the Glenn Highway from the Matanuska Valley area eastward, corridor #29, along the Matanuska River, through the Chugach Mountains and on eastward to the Copper River basin at Eureka, thence eastward to Glennallen joining corridor #33. A spur from Palmer westward connects to the Railbelt Corridor near Willow.

3. Purposes to be served by the corridor.

Prime reasons:

The prime reason is completion of a power transmission loop from Anchorage to Glennallen, Fairbanks and back to Anchorage. From the Glennallen area, power would be extended to Valdez.

Secondary reasons:

Oil and gas transportation to processing plants or shipping ports in the Cook Inlet or Prince William Sound areas is a secondary reason. This corridor connects to pipeline corridors #29 or #30.

4. Mode(s).

Power transmission and oil and gas pipelines are contained along the entire length of the corridor. The corridor follows an existing highway.

5. Expected time frame for use.

The loop concept for power is scheduled by 1980.

Oil production will be going south past Glennallen by 1978. Gas production is proposed by El Paso Natural Gas Company to go through Glennallen by 1985. The petro-chemical industry in Cook Inlet is just now beginning to develop in and around Cook Inlet. Another alternative is processing somewhere along the Alyeska route and transporting processed petro-chemicals to the Cook Inlet area market or ports.

6. Corridor identified by:

Oil and gas corridors were identified by the Bureau of Land Management.

Power transmission needs were identified by the Alaska Power Administration.

7. Basis for location.

Location generally follows the existing Glenn Highway.

8. Opposition expected to this corridor.

None is known.

9. Environmental Impacts.

Power transmission impacts would be primarily visual, if overhead lines are used, in an area of heavy highway and air traffic. Pipeline visual impact probably would be less significant.

Impacts on water quality will be minimal from power transmissions. Oil pipeline impacts are potentially significant as the corridor parallels the Matanuska River. Soil erosion and local permafrost degradation would be present but could be reduced.

No major impacts on wildlife are known. The corridor would cross the Nelchina caribou herd range just south of its calving area. The Glennallen area is a medium density waterfowl area. Powerlines can adversely impact waterfowl.

The area generally is not an important anadromous fish area. Near Glennallen is a good sports fishing area.

Near Glennallen the corridor is within the Copper River drainage, which is a major fish producer. Here the oil pipeline could have significant impacts.

10. Social Impacts.

Palmer, Sutton and Glennallen are the communities along the route. Social impacts of the powerline would be minimal. Pipeline construction would provide short-term but possibly severe social impacts on the local economies. Impacts in the Cook Inlet would be similar to that described in corridor #29.

11. Land Status.

The corridor will cross lands having the following status:

a) Proposed d-2 lands.

None.

b) Lands withdrawn for Native selection.

Gulkana

Chickaloon

Gakona

Tazlina

Copper Center

c) Native deficiency lands.

Ahtna Native Regional Corporation

d) Other

State lands.

d-1

12. Alternative corridor routes.

The alternative route for oil and gas transportation to the Cook Inlet area is the corridor #29.

There appear to be no known alternatives to the power loop proposal.



CORRIDOR #32: CIRCLE-EAGLE

1. Length (miles) approx. 130
2. Route Description:

The route generally goes southeasterly along the Yukon River from the existing Steese Highway near Circle to Eagle on the Yukon about 6 miles from the U.S. - Canadian boundary where the route connects to the existing Taylor Highway. The route travels through "foothill" type country crossing the Charley River about 10 miles upstream from the confluence with the Yukon River.

3. Purposes to be served by the corridor.

Prime reasons:

The corridor will increase access into a highly mineralized area for development and further exploration of gold, asbestos, phosphates and coal. A road could provide development access for future timber production areas. Recreation access in an area of two wild and scenic river proposals, Birch Creek and Charley River, and access for fire control activities could be provided by the road.

Secondary reasons:

This corridor parallels a portion of the Fort Yukon Arctic Gas route located along the north side of the Yukon River. It is intended that these two corridors are alternatives and if one is constructed, the other proposal would not be constructed.

4. Mode(s).

Oil and gas pipelines are considered, as the Alaskan Arctic Gas Pipeline Company has identified an alternative natural gas shipment route on the north side of the Yukon River from Fort Yukon to Canada. The highway and pipeline modes are present for the entire corridor length.

5. Expected time frame for use.

Alaska Department of Highways anticipates construction of a highway within 10 years.

The need for an oil pipeline could develop by 1980-1990.

6. Corridor identified by:

The highway mode has been identified by the Alaska Department of Highways.

7. Basis for location.

Preliminary survey work done for the Department of Transportation prior to statehood.

8. Opposition expected to corridor.

Opposition from conservation groups and the National Park Service is expected.

9. Environmental Impacts.

Water quality would be impacted by increased sedimentation and possible erosion primarily due to crossings and increased public access to the streams. There could be permafrost degradation. The route parallels a key peregrine falcon nesting area that lies on the bluff areas along the Yukon River and this will be impacted to some degree. Waterfowl areas including canvasback nesting would be impacted. Sheep populations and caribou migrations could be altered.

The area traversed also has high scenic, primitive and historic value.

10. Social impacts.

The primary social impacts will be on the small communities of Circle and Eagle; both have a high percentage of Natives and both are presently served by road. The largest impact will probably be increased tourist traffic through this historic area if a loop road from Fairbanks to Circle to Eagle and back to the Alaska Highway were opened.

11. Land Status.

The corridor will cross lands having the following status:

a) Proposed d-2 lands.

Yukon-Charley National Rivers
Charley Wild River

b) Lands withdrawn for Native selection.

Eagle Village
Circle

c) Native deficiency lands.

Doyon Native Regional Corporation

d) Other

None

12. Alternative corridor routes.

An alternative corridor area considered was placing a similar corridor on the north side of the river to join corridor #25. The National Park Service has recommended that corridor #8 be used as an alternative ferry mode to the highway connection for Eagle and Circle.



CORRIDOR #33: BIG DELTA—VALDEZ

1. Length (miles) approx. 290
2. Route Description.

North to south.

The route generally follows the existing Trans-Alaska Pipeline corridor. Beginning at Fort Greely, it passes through the Alaska Range via Isabel Pass to Paxson, thence down the Gulkana River to its junction with the Copper River at Gulkana. It continues southward through Glennallen where it intersects corridor #31, then passes near Copper Center, Tonsina, and Tiekel. It passes through Chugach Range via Thompson Pass, and continues down the Lowe River to the port City of Valdez.

A spur, approximately 42 miles long, leaves the Lowe River area and proceeds southeasterly to Port Gravina.

3. Purposes to be served by the corridor.

Prime reasons:

The transportation of oil and gas to shipping terminals in the Valdez area is the prime purpose of this corridor.

Secondary reasons:

An existing highway in the corridor connects Valdez with the Alcan Highway. Provisions for electrical power lines will form part of the Anchorage-Fairbanks-Glennallen-Anchorage loop and will provide power to Valdez.

4. Mode(s).

The mode for oil and gas transport will be pipeline. There will be an electric transmission line. Each mode is present for the entire corridor length. These modes largely parallel the Richardson Highway.

5. Expected time frame for use.

This corridor is a route of the existing Trans-Alaska Oil Pipeline to Valdez. The development of future gas and oil production from the North Slope is being explored at this time and future production requiring additional pipelines could reasonably be expected within 10 years.

6. Corridor identified by:

El Paso Natural Gas Company identified the corridor and its spur from the Lowe River to Port Gravina. Part of the corridor was withdrawn by the Secretary of the Interior as a utility and transportation corridor in December 1971.

7. Basis for location.

The corridor on Federal lands is presently an existing withdrawal for the Trans-Alaska Oil Pipeline.

8. Opposition expected to corridor.

None is known.

9. Environmental Impacts.

The corridor passes through two very scenic areas, Isabel Pass in the Alaska Range, and Thompson Pass, in the Chugach Mountains. The scenic impact of additional future construction projects in this area may be significant.

The Trans-Alaska Pipeline route parallels several rivers so potential for water pollution is great. The Gulkana River, the Copper River and the Lowe River are all fish producing streams, so a potential oil spill could affect both fisheries and water quality.

The route passes through permafrost areas, and soil erosion is a constant problem along the entire route.

There would be impacts to all coastal wildlife on the Gravina spur route.

10. Social Impacts.

There would be a similar social impact from the construction of a major oil or gas pipeline as is being presently experienced from the construction of the Trans-Alaska Pipeline. If the natural gas line were constructed as El Paso proposes, the timing of construction would somewhat mitigate social impacts being presented by Alyeska project. Among social impacts are overloading of the social facilities within the small communities, increased need for more and better highway systems, and increased opportunity for local employment.

11. Land Status.

The corridor will cross lands having the following status:

a) Proposed d-2 lands.

None.

b) Lands withdrawn for Native selection.

Gakona
Gulkana
Tazlina
Copper Center
Tatitlek
Eyak

c) Native deficiency lands.

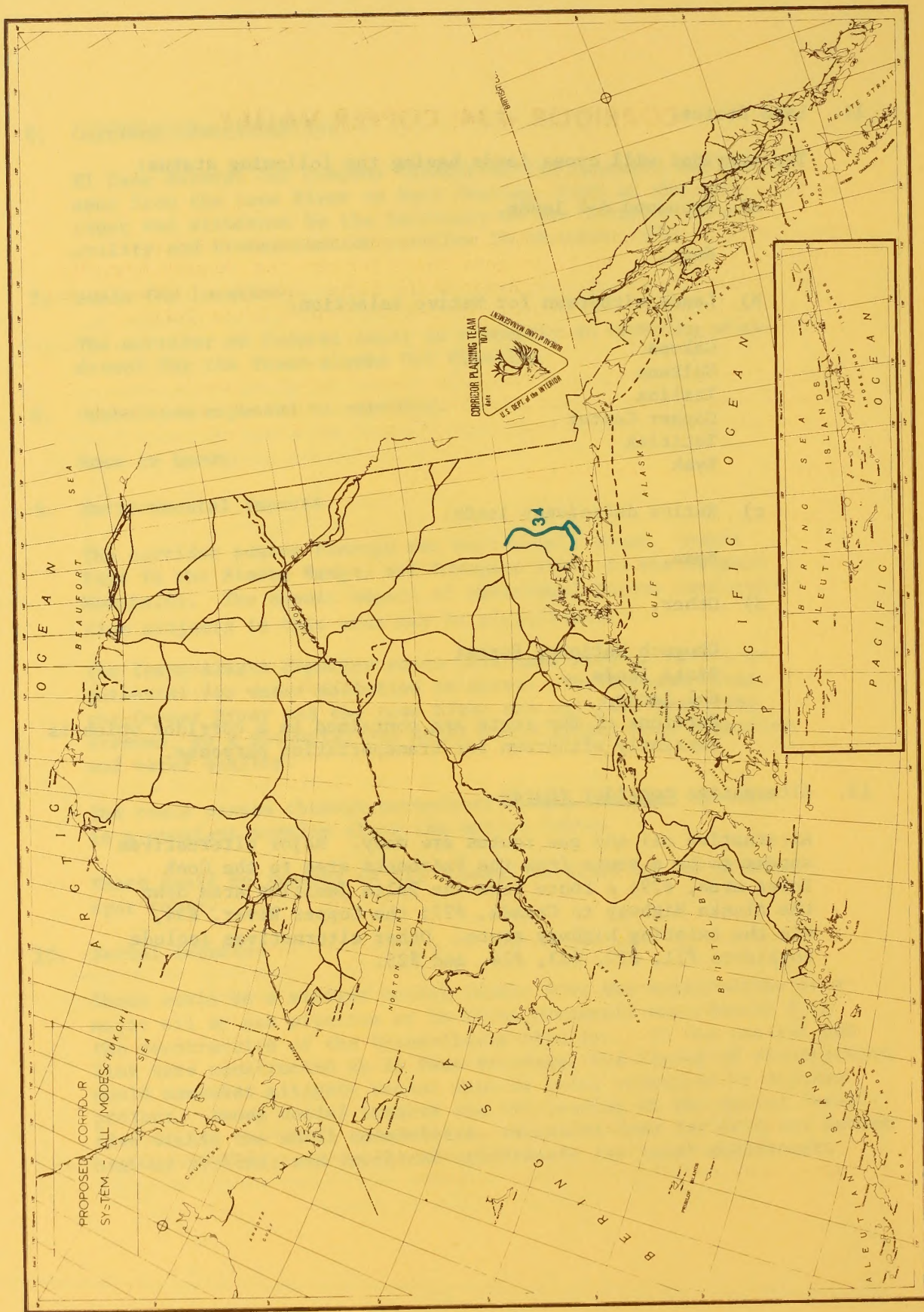
None.

d) Other.

Chugach National Forest
State lands
d-1 lands
Portions of the route are contained in a corridor which is currently withdrawn for transportation purposes.

12. Alternative corridor routes.

Alternative oil and gas routes are many. Major alternatives appear to be a route from the Fairbanks area to the Cook Inlet area, #29; a route from the Delta Junction area down the Alaska Highway to Canada, #27; the Copper River, #34, via the existing highway route. Other alternatives include corridors #21, #22, #23, #24, and #25.



CORRIDOR #34: COPPER VALLEY

1. Length (miles) approx. 160
2. Route Description:

This route begins north of Willow Lake and goes down the Copper River to Cordova. The route goes south through the Chugach Mountain Range, following the Copper River which flows through a narrow canyon for the majority of its route, then at the Copper River Delta, continues westward to Cordova.

Just before the corridor crosses the Copper River Delta, a spur extends easterly to the Katalla Coal Fields. Another spur extends south from the Fields to the potential port of Katalla.

3. Purposes to be served by the corridor.

Prime reasons:

Oil and gas transportation to a shipping terminus is the prime reason for the corridor.

Secondary reasons:

Transportation of coal from the mine to a shipping terminus at Cordova or at Katalla is one of several secondary reasons. The highway system would provide surface access to Cordova, and transportation for the copper ore or concentrates to a shipping point at Cordova.

4. Mode(s).

The highway, oil pipeline and gas pipeline are present for the entire corridor length. The coal slurry lines extend from Cordova to the Katalla fields; a slurry line also extends from the coal fields to the abandoned village and potential port of Katalla.

5. Expected time frame for use.

The Alaska Department of Highways plans construction of the highway within 10 years. Oil and gas transportation needs could develop within the 1980's.

The coal field near Katalla is now under investigation. A coal prospecting permit has been issued to Cortella Coal Company, and development could occur within 10 years.

6. Corridor identified by:

The Alaska Department of Highways has proposed this route for a highway. Cortella Coal Company is proposing to export the coal.

This route has been identified as an alternate gas transportation route by the El Paso Natural Gas Pipeline Company. The Bureau of Land Management identified the coal slurry corridor spur and the oil pipeline.

7. Basis for location.

The road presently being constructed primarily is located on an old railroad grade. Due to the steep topography, location choices are limited.

The coal transportation is across flat, coastal plains along a route used many years ago for a railroad location. Oil and gas pipelines would parallel other modes.

8. Opposition expected to corridor.

The Alaska Conservation Society and Sierra Club have enjoined the Alaska Department of Highways to stop construction of a highway along the Copper River. The corridor might also be opposed by Native Corporations and commercial fishing interests.

9. Environmental Impacts.

The entire route parallels the scenic Copper River, which is a glacial stream. The route also passes very close to several glaciers along the way. The proposed highway crosses over a hundred side streams along the route; these would have to be bridged; soil erosion and some additional sediments would probably be added to the Copper River drainage.

This route has significant wildlife impact potential. It passes through some mountain goat and Dall sheep country. There are also brown bear denning sites and also a black bear concentration area. Two of the more prominent waterfowl species in the Copper River Delta are the Dusky Canada goose and Trumpeter Swans; the delta area is the only breeding area in the world for the Dusky Canada goose.

Major non-glacial tributaries of the Copper River provide high-quality sports fishery. The Copper River drainage is an important area for salmon. There could be a fairly significant impact on the fisheries from construction, operation and maintenance activities.

10. Social Impacts.

The ready access to the highway system connecting to the rest of the State will be a significant social impact for the people of Cordova. Cordova may expect a substantial increase in the tourist traffic. If the coal, oil, gas and copper ore all channeled towards Cordova, it could develop into a regional industrial center, and social impacts would be commensurate with the population changes and shifts in the economic base.

11. Land Status.

The corridor will cross lands having the following status:

a) Proposed d-2 lands.

Wrangell Mountain National Forest

b) Lands withdrawn for Native selection.

Chitina
Eyak

c) Native deficiency lands.

Ahtna Native Regional Corporation
Chugach Native Regional Corporation

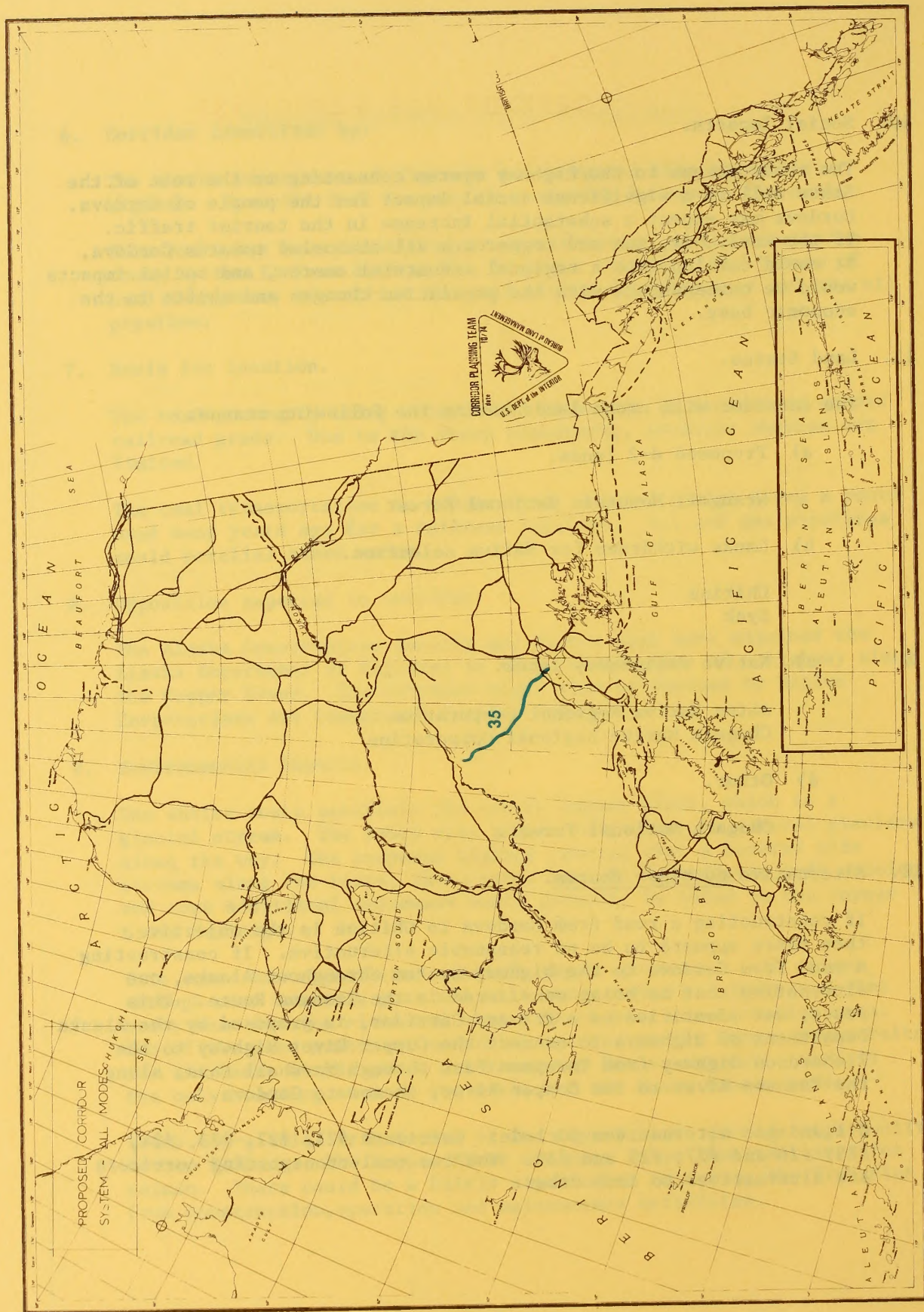
d) Other.

Chugach National Forest.

12. Alternative corridor routes.

If constructing a road from Cordova to Chitina is the objective, then there appears to be no reasonable alternative. If constructing a road from Cordova to the highway system throughout Alaska, one alternative that is being considered is the Tasnuna Route. This route, not identified as a Primary Corridor, is proposed by the Alaska Department of Highways to connect the Copper River Highway to the Richardson Highway from Thompson Pass through Marshall Pass, along the Tasnuna River to the Copper River, thence to Cordova.

Oil and gas alternatives include: Corridors #21, #22, #23, #24, #25; #26 and #27; #26 and #29. The two coal-transporting corridors are alternatives to each other.



CORRIDOR #35: RAINY PASS

1. Length (miles) approx. 225
2. Route Description:

Beginning at the abandoned village of Susitna near the junction of corridors #29, 30 and 31, on the Susitna River, this route proceeds northwest to the Skwentna River and then up the Skwentna to the junction with Happy River. Continuing westward, the route crosses the Alaska Range through Rainy Pass emerging on the north side of the range at Farewell on the South Fork of the Kuskokwim River. The route then goes down the south fork through Nikolai to the junction of the south and east forks of the Kuskokwim at Medfra, where it intersects corridor #13.

3. Purposes to be served by the corridor.

Prime reasons:

This corridor is a regional intertie between the southcentral portion of the State and the western Alaska region centered around Bethel. It also services the mineral belt that coincides with the Kuskokwim Mountains and Alaska Range.

Secondary reasons:

A secondary reason would be the development of the timber resources in the Kuskokwim area. Along the Skwentna River, there are significant agriculture and timber potentials that could be served. This route might also provide more direct road access to the future State Capital area for the largest "bush" population in Alaska, centered around Bethel.

4. Mode(s).

The mode would be highway.

5. Expected time frame for use.

This major cross-state tie would probably be developed within 20 years.

6. Corridor identified by:

The Alaska Department of Highways and the Resource Planning Team of the Joint Federal-State Land Use Planning Commission identified this corridor.

7. Basis for location.

The location is based on Alaska Department of Highways information, including map and aerial reconnaissance and local knowledge; on-the-ground location work has been limited.

8. Opposition expected to corridor.

No specific opposition is known. Conservation groups such as the Iditarod Trail Committee may oppose this corridor, as may some Native groups.

9. Environmental Impacts.

This proposed corridor would pass through the Alaska Range in a highly scenic area. Most of the location is located in river valley areas. The scenic impact of the road itself would be considerable when viewed from the air.

The route parallels the Skwentna River and other drainages for a good portion of the route. There could be adverse water quality and fisheries impacts that must be considered, especially in the construction stages.

Soil erosion would be a localized problem. The route passes through discontinuous permafrost in the Alaska Range and isolated masses of permafrost on either side of the mountains.

The route passes through a medium to high waterfowl production area south of the Alaska Range. Once through the Range, waterfowl are not significant. The route passes in an area between two caribou herds. The route does cross through river bottom lands so there would be an adverse impact on black bear and moose.

The area south of the Alaska Range produced both sport and anadromous fish. It is very probable that increased access would result in increased pressure on these fisheries.

10. Social Impacts.

The social impact of this corridor is significant to people living in the western Alaska region. This corridor would provide road transportation to and from the Bethel-Kuskokwim area, and provide capital access for a major "bush" population.

The route follows the route of the historic Iditarod Gold Rush Trail. This trail has been identified by Congress as having potential for inclusion into the National Scenic Trail System.

11. Land Status.

The corridor will cross lands having the following status:

a) Proposed d-2 lands.

Yukon-Kuskokwim National Forest

b) Lands withdrawn for Native selection.

Nikolai

c) Native deficiency lands.

None

d) Other.

State lands, d-1 lands

12. Alternative corridor routes.

The primary alternative considered was identified by the Alaska Department of Highways. This route through Merrill Pass was not identified as a Primary Corridor. The route does not serve as many people along the Kuskokwim River, nor the mineral or timber resources that are present along corridor #35.

The other alternative is corridor #13 from Bethel to Rex, then corridor #29's existing Anchorage-Fairbanks Highway.

CORRIDOR #36: CHANDALAR

1. Length (miles) approx. 200
2. Route Description:

This route is an alternative for the major portion of Prudhoe-Fort Yukon Corridor #25. It departs from Corridor #25 just south of continental divide in the Philip Smith Mountains. It follows the Middle Fork of the Chandalar River to its confluence with the West Fork and thence to the Yukon River.

3. Purposes to be served by the corridor:

Prime reasons:

The purpose is to move oil and natural gas from Prudhoe Bay to link with a Canadian line near Dawson, Yukon Territory, by a route which avoids areas having high scenic and natural values in corridor #25.

Secondary reason:

The corridor could serve general transportation needs in an area with only one existing road.

4. Mode(s).

A highway, an oil pipeline and a gas pipeline are included in the route.

5. Expected time frame for use.

If this option is selected as the best route, then the time frame is 10 years.

6. Corridor identified by:

This corridor was identified by the Bureau of Land Management.

7. Basis for location.

Map inspection was used for corridor location.

8. Opposition expected to corridor.

Some opposition may be expected from Native groups; however, a significant advantage of this route is that it keeps the corridor out of the Wind River, which is in the Secretary of the Interior's proposal for wild and scenic rivers.

9. Environmental Impacts.

The Chandalar River has high potential for its natural features. There could be water pollution due to construction activities. Waterfowl nesting and caribou would be impacted by noise pollution resulting from construction and also from operation of the pumping and compressor stations. Impacts of a temporary nature during construction of facilities would affect wildlife and fish. The corridor is in a continuous permafrost zone.

10. Social Impacts.

Creation of employment, added supply routes for movement of goods, and possible sources of heat and cooking energy might change life styles. More people would be brought into the area, especially during construction.

11. Land Status.

The corridor will cross lands having the following status:

a) Proposed d-2 lands.

Yukon Flats National Wildlife Refuge

b) Lands withdrawn for Native selection.

None

c) Native deficiency lands

None

d) Other.

State lands

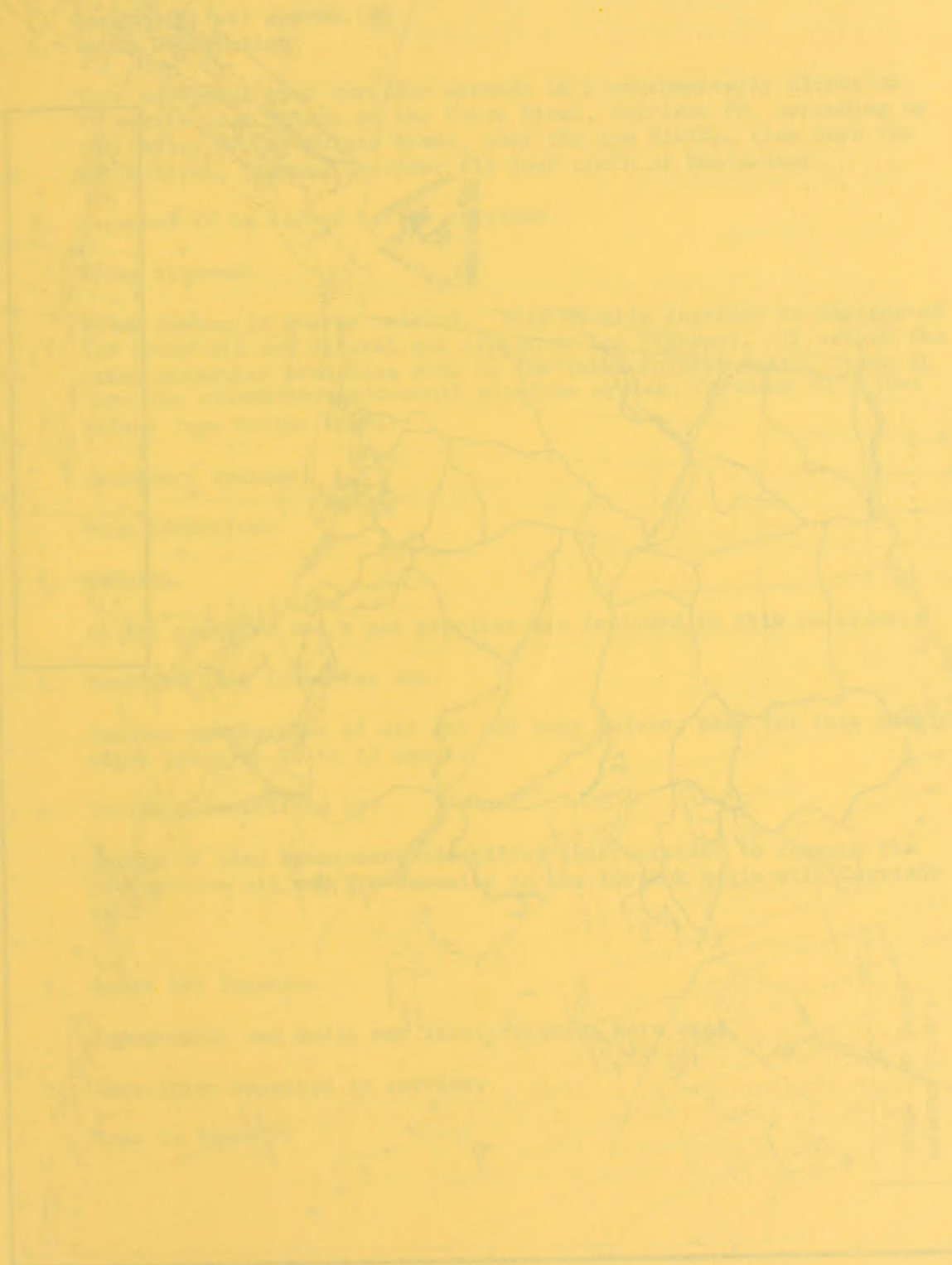
d-1 lands

Rampart Power Withdrawal

12. Alternative corridor routes.

There are several alternatives to the proposed route; these include: Corridors #21, #22, #23, #24, and #25. By combining corridors, other alternatives are possible; these include: #26 and #27; #26 and #27 to #33; #26 and #27 to #33 then to #31; #26 and 27 to #29.

Corridor #37: Unalakleet



CORRIDOR #37: UNALAKLEET

1. Length (miles) approx. 80
2. Route Description:

This east-west spur corridor extends in a southwesterly direction. It starts near Nulato on the Yukon River, Corridor #8, extending up the valley of the Nulato River, over the low divide, then down the North River, joining Corridor #11 just north of Unalakleet.

3. Purposes to be served by the corridor.

Prime reasons:

Prime reason is energy related. This 80-mile corridor is designated for crude oil and natural gas pipelines (no highway). It serves the prime potential producing area in the Yukon-Koyukuk Basin, tying it into the extensive north-south pipeline system, Corridor #11, just inland from Norton Sound.

Secondary reasons:

None identified.

4. Mode(s).

An oil pipeline and a gas pipeline are included in this corridor.

5. Expected time frame for use.

Pending development of oil and gas near Nulato, need for this corridor might arise in 10 to 15 years.

6. Corridor identified by:

Bureau of Land Management identified this corridor to connect the prospective oil and gas deposits in the Koyukuk Basin with Corridor #11.

7. Basis for location.

Topographic and soils map interpretation were used.

8. Opposition expected to corridor.

None is known.

9. Environmental Impacts.

Water quality could change from oil spills, additional erosion and sediment, and hydrological flow changes.

Permafrost degradation would result if the vegetative mat is disrupted.

Sport and anadromous fisheries are present and would be impacted if soil and/or water quality changes. There may be additional hunting and fishing pressures,

10. Social Impacts.

Increased employment opportunities for residents during construction and operation of the pipeline would mean more contact between Natives and outsiders. Heavier reliance by Natives on pipeline-oriented jobs would speed up the transition from a subsistence to a cash economy.

11. Land Status.

The corridor will cross lands having the following status:

- a) Proposed d-2 lands.

None

- b) Lands withdrawn for Native selection.

Unalakleet
Nulato
Kaltag

- c) Native deficiency lands.

Doyon Native Regional Corporation

- d) Other.

d-1

12. Alternative corridor routes.

An alternative to this would be a more southerly route down the main Unalakleet River. The alternative route, proposed by the State of Alaska as a highway route, was rejected because of the high natural scenic values along the main Unalakleet drainage.

CORRIDOR 135: TANANA RIVER

The Tanana River flows through the heart of the Tanana River
 drainage basin, which covers an area of 100,000 square miles
 and drains into the Chukchi Sea. The Tanana River is the
 largest tributary of the Yukon River.





CORRIDOR #38: TANANA RIVER

1. Length (miles) approx. 200
2. Route Description:

This corridor extends along the main course of the Tanana River between Fairbanks and Tanana. In general, it is a braided river suitable for shallow draft barges. The route links Corridors #29 and #8.

3. Purposes to be served by the corridor.

Prime reasons:

The prime reason is river transportation. Major rivers are natural corridors which now or will provide for waterborne transportation, over snow/ice transportation, and air cushion vehicle movement. It will serve for the transportation of goods, commodities and people.

Secondary reasons:

The water corridor can serve as an alternative for or supplement to rail transportation between Fairbanks, Nenana, and Tanana.

4. Mode(s).

The river may be used by barges, riverboats, as well as air cushion vehicles. During winter, any form of over-the-ice craft could utilize the river.

5. Expected time frame for use.

Use is expected from the present time, through 2001.

6. Corridor identified by:

The Bureau of Land Management identified this corridor.

7. Basis for location.

This river has been a route of commerce perhaps since the advent of man in the area. It has been used for mineral exploration and the movement of many commodities. Barges are still used on this river to move goods and commodities in and out of Fairbanks, Tanana, and other communities.

8. Opposition expected to corridor.

None is known.

9. Environmental Impacts.

Possible spillage of oils or water pollution by other chemical products would adversely affect water quality, fisheries, and waterfowl. Sediment would increase from harbor and dock construction, dredging, and maintenance. Heavy use of this corridor could cause an increase in riverbank erosion because of increased wave action. There would be some impact on waterfowl from increased river traffic and noise from mechanized modes.

10. Social Impacts.

There would no doubt be some social impact on Native village life styles if this corridor receives a substantial increase in use. The increased use of this system could bring increased employment and cheaper freight rates.

11. Land Status.

The corridor will cross lands having the following status:

a) Proposed d-2 lands.

None.

b) Lands withdrawn for Native selection.

Tanana
Manley Hot Springs
Nenana

c) Native deficiency lands.

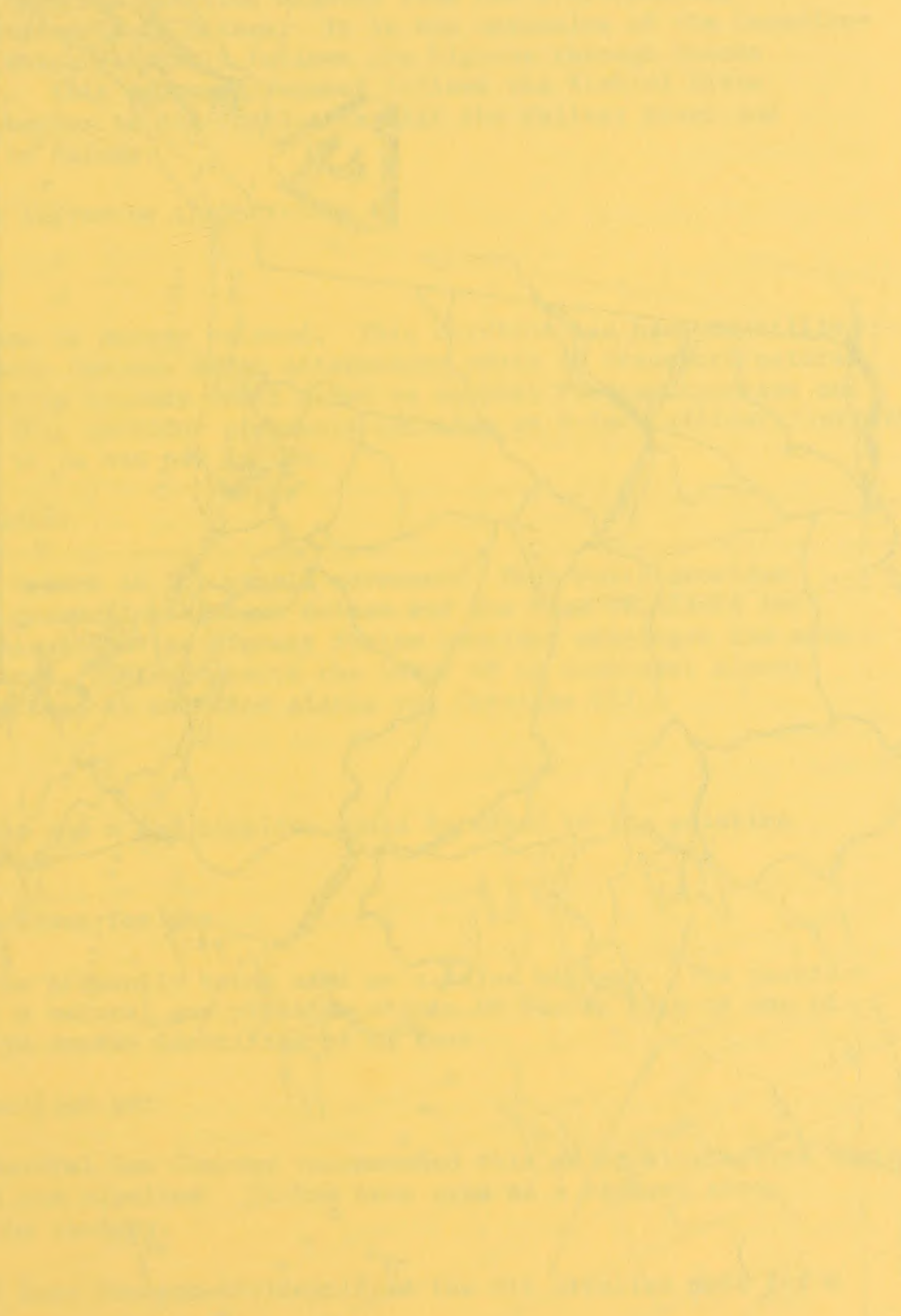
Doyon Native Regional Corporation

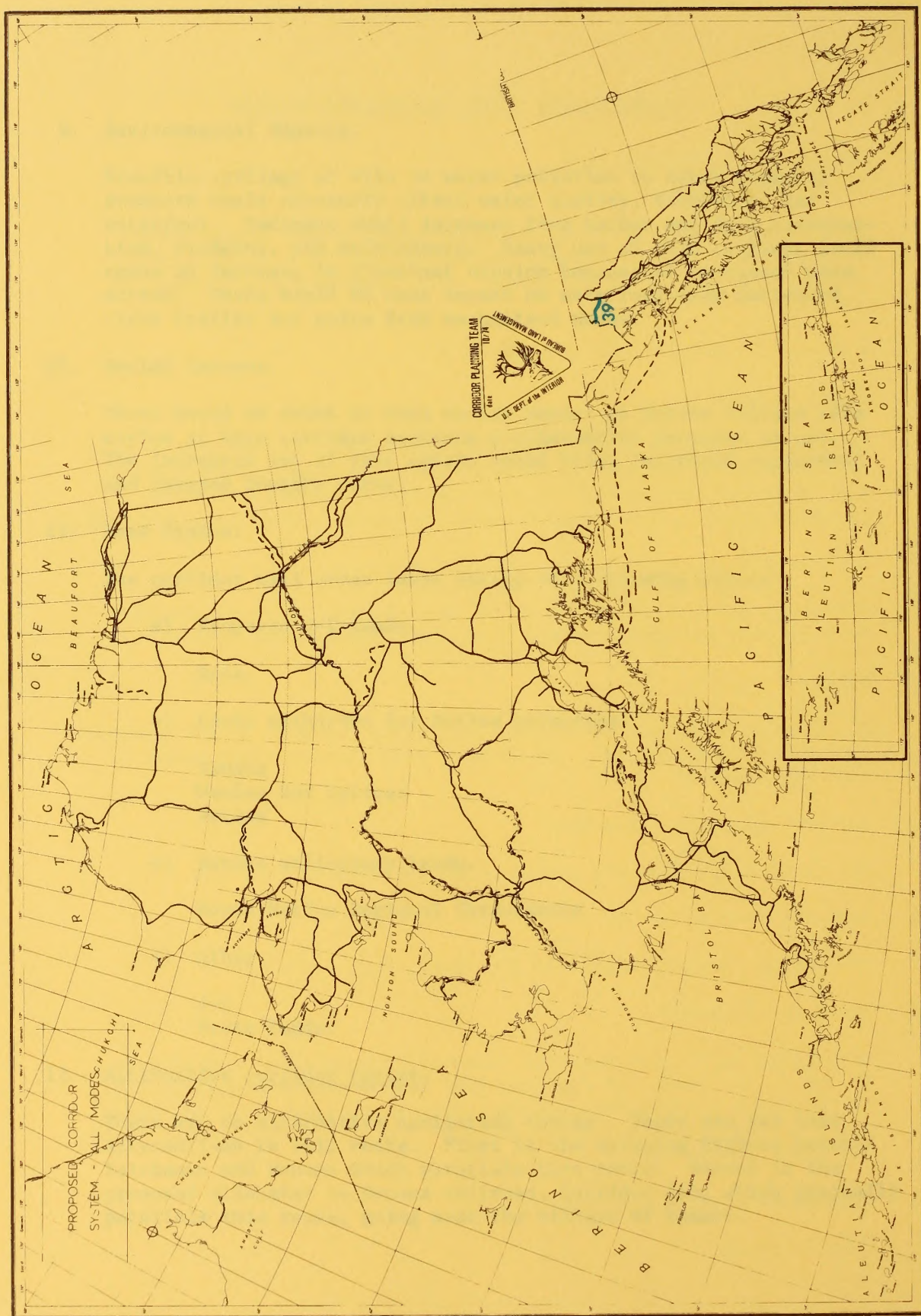
d) Other.

d-1
State lands.

12. Alternative corridor routes.

There are no alternative navigation routes. There are two land alternatives to this route. First is the existing highway between Fairbanks and Nenana which parallels this route. Second is the proposed Allakaket to Nenana railroad, Corridor #15, which generally parallels this route, going near the village of Tanana.





CORRIDOR #39: HAINES

1. Length (miles) approx. 50 (map-scaled)
2. Route Description:

This route follows the existing highway from the U.S.-Canadian boundary southeasterly to Haines. It is the extension of the Canadian-Alaskan route which generally follows the highway through Canada (Corridor #27). This proposed segment follows the Klehini River at the Alaska border to its confluence with the Chilkat River and from there on to Haines.

3. Purposes to be served by the corridor.

Prime reasons:

The prime reason is energy related. This corridor has been identified by El Paso Alaska Company as an alternative route to transport natural gas. The existing highway would serve as support for construction and maintenance. This corridor presently contains an 8-inch military-installed oil pipeline; it is not now in use.

Secondary reasons:

The secondary reason is for people movement. This route provides the only land connection between Haines and the rest of Alaska and Canada. The Alaska Marine Highway System provides passenger and auto service to Haines. This connects the Lower 48 to southeast Alaska and provides access to mainland Alaska via Corridor #27.

4. Mode(s).

An oil pipeline and a gas pipeline would be added to the existing highway corridor.

5. Expected time frame for use.

The corridor is presently being used as a major highway. The corridor could include a natural gas pipeline within 10 years; this is one of the alternative routes identified by El Paso.

6. Corridor identified by:

The El Paso Natural Gas Company recommended this as an alternative route for a natural gas pipeline. It has been used as a roadway since the turn of the century.

The Bureau of Land Management identified the oil pipeline mode for this corridor.

It is also recommended by the Corridor Planning Team as a transportation corridor.

7. Basis for location.

Oil and gas pipeline modes were placed along the existing highway. In addition, the existing highway provides incentive and monetary savings for construction of the natural gas pipeline. The construction data for the highway, along with the engineering studies, would be available and at least partially applicable to the natural gas pipeline.

8. Opposition expected to corridor.

None is known.

9. Environmental Impacts.

Some degradation of aesthetic and scenic values, erosion, and vegetative disturbance can be expected.

Extreme care in both design and construction would be necessary to prevent environmental degradation, especially of the Klehini and Chilkat Rivers. The latter provides the food, in the form of dying salmon, for hundreds of bald eagles. These eagles rest adjacent to the highway and are easily visible and well known to all who travel this road in the fall and winter.

This corridor also contains scenic values which should be of prime importance in location if a natural gas pipeline or any other major construction is undertaken.

10. Social Impacts.

The social impact can be readily separated into two distinct categories: impact of the corridor itself, and impact of the proposed terminal facilities at Haines.

The major impact of any pipeline would be during construction. After construction, the social impact of the corridor would be minimal.

Terminal facilities at Haines would cause long-range social effects, both on Haines itself, and, to a lesser degree, on the State of Alaska. There would be extensive dock and port facilities constructed, year-round personnel stationed at Haines, and considerably more ocean traffic coming to Haines.

The effect of business and industrial activity on the small town of Haines would be considerably more severe than upon an area like Anchorage.

11. Land Status.

The corridor will cross lands having the following status:

- a) Proposed d-2 lands.

None

- b) Lands withdrawn for Native selection.

Haines

- c) Native deficiency lands.

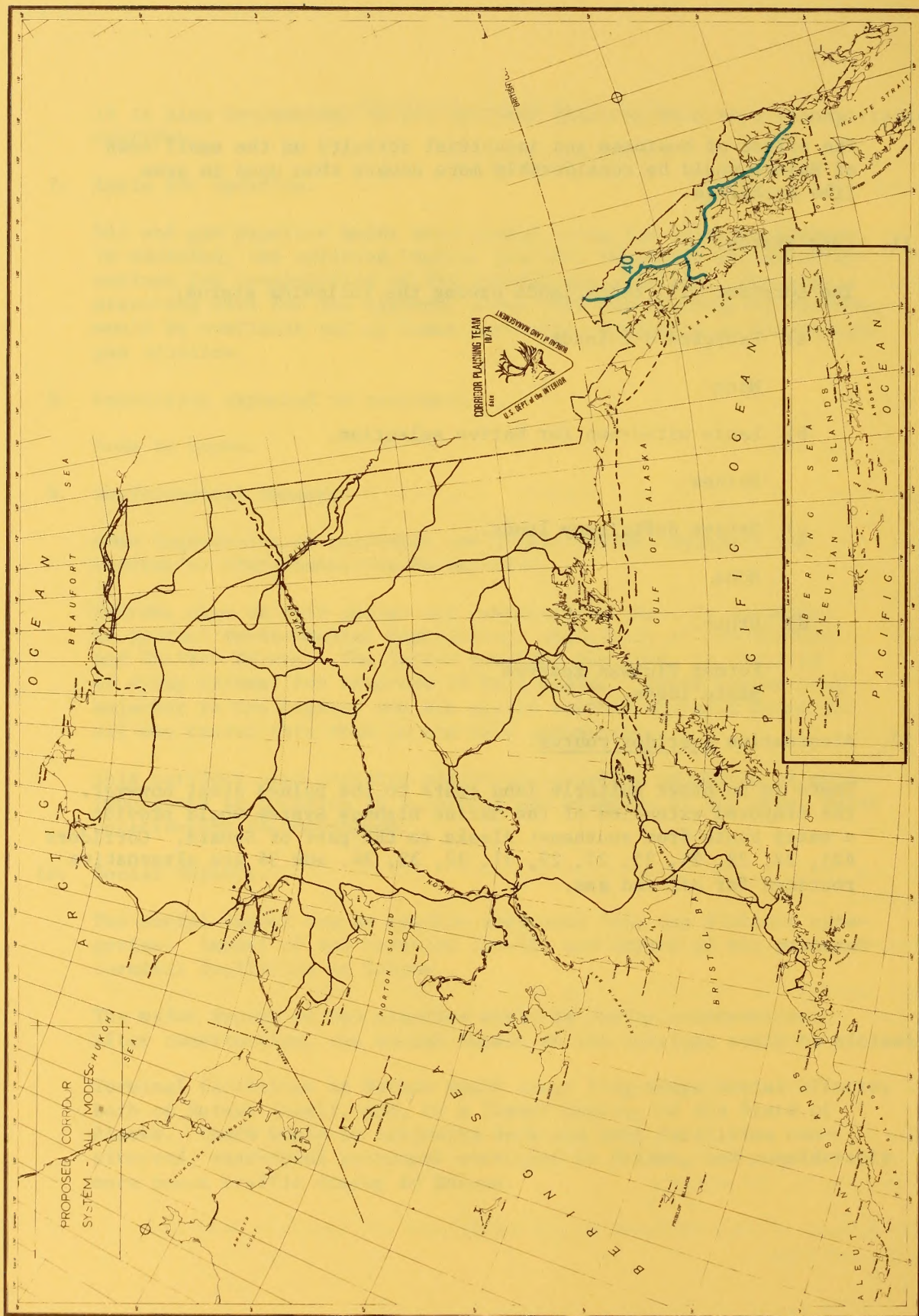
None

- d) Other.

Former Klukwan Reserve
State lands.

12. Alternative corridor routes.

There is no other suitable land route to the Haines area; however, the proposed extension of the Marine Highway System would provide a water route from southeast Alaska to the port of Seward. Corridors #21, 22, 23, 24, 25, 27, 29, 31, 32, 33, 34, and 36 are alternative routings for oil and gas.



CORRIDOR #40: SOUTHEAST POWER GRID

1. Length (miles) approx. 550

2. Route Description:

The route begins at the Canadian Border in the White Pass area, goes southward to Skagway, then proceeds down the western side of Lynn Canal to just north of Juneau. A short spur goes to Juneau. The main corridor continues down the west side of Admiralty Island to Angoon, where a spur takes off to Sitka. From Angoon, the corridor goes to Kake, Petersburg, and Ketchikan, and terminates at Tongass.

3. Purposes to be served by the corridor.

Prime reason:

Electrical power transmission throughout Southeast Alaska would be served. The power source is the Yukon-Taiya project. Other power sources might be included along the way.

Secondary reason:

None identified.

4. Mode(s).

Overhead transmission line, and buried and underwater cable are the modes in this corridor.

5. Expected time frame for use.

The Alaska Power Administration has forecasted implementation of parts or all the system by 1990.

6. Corridor identified by:

The Alaska Power Administration identified this corridor.

7. Basis for location.

A long-range planning effort using topographic maps, aerial photos, and local experience associated with projected power developments and demand.

8. Opposition expected to corridor.

None known, but opposition from conservation groups is anticipated.

9. Environmental Impacts.

The principal impact will be on the scenery. As the corridor crosses many streams and saltwater passages, there would be impacts on these waters during construction and probably some during operation and maintenance.

There would be definite soils and fisheries impacts in the construction areas. Major impact areas would be tower locations, access roads, right-of-way clearings and subterranean marine crossings. If access were increased by use of access roads, the big game animals such as brown bear, goat and deer could receive more hunting pressure. As the corridor follows coastline areas, there can easily be a significant impact on bald eagles which nest along the shores all along the route. Migratory waterfowl impacts are most critical in the following areas: Juneau, Haines, Kupreanof Island, and the Stikine River Delta.

10. Social Impacts.

Construction would provide increased employment which could be significant, particularly in the Juneau area, if construction of this project and the capital move project happen simultaneously.

Power dependability would be improved for many of the communities and industries along the line.

11. Land Status.

The corridor will cross lands having the following status:

a) Proposed d-2 lands.

None

b) Lands withdrawn for Native selection.

Angoon
Haines
Saxman
Kake

c) Native deficiency lands.

None

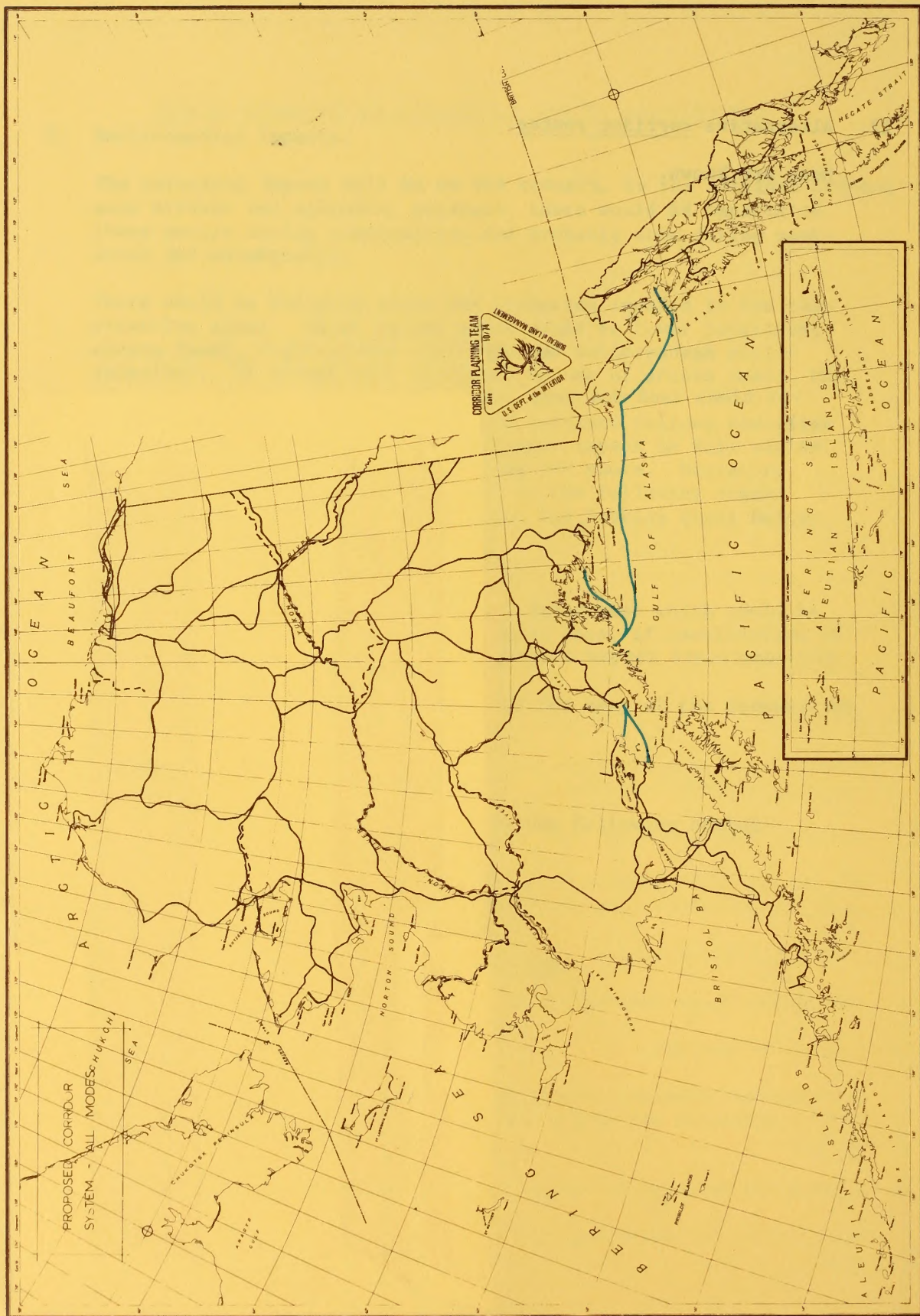
d) Other.

Tongass National Forest

12. Alternative corridor routes.

None are known.

Borrower's	
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PROPOSED EXTENSION OF MARINE HIGHWAY SYSTEM

Bureau of Land Management
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1. Length (miles) Variable
2. Route Description:

A major route would be from the existing Marine Highway System in Southeast Alaska to connect to Yakutat and Seward. Another link would provide direct service from Seward to Cordova. Two other proposals are extensions from Homer across Cook Inlet to Kamishak Bay and Iniskin Bay.

3. Purposes to be served.

The basic reason is expansion of the Marine Highway System for movement of people and commerce between points not presently served.

4. Mode(s).

Only ferries are considered.

5. Expected time frame for use.

Expected demand for the entire system should develop by 2001.

6. Corridor identified by:

Some routes have received preliminary investigation by the State of Alaska.

7. Basis for location:

Unknown.

8. Opposition expected to corridor.

None expected.

9. Environmental Impacts.

Potential exists for accidental fuel spills at docking areas; collision with other ocean traffic, fishing vessels or icebergs; and water pollution from new dock or port construction.

10. Social Impacts.

Increased employment through operation of the system and increased tourism; better water transportation from Cordova, Yakutat and other potential ports; and wider outdoor recreational opportunities would be provided. In addition, better water transportation might open up areas to development on the west side of Cook Inlet and near Cape Yakataga.

11. Land Status

The routes would directly impact only small areas where docks and related facilities would be developed.

12. Alternative corridor route. - No alternative water routes are identified.

As the Nation's principal conservation agency the Department of the Interior has basic responsibilities for water, fish, wildlife, mineral, land, park and recreational resources. Indian and Territorial affairs are other major concerns.



The Department works to assure the wisest choice in managing all our resources so each will make its full contribution to a better United States--now and in the future.